AMERICAN RAILROAD JOURNAL.

STEAM NAVIGATION, COMMERCE, MINING, MANUFACTURES.

HENRY V. POOR, Editor.

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Saturday, February 17, 1849.

India Rubber Springs.

Numerons as are the applications of India Rubber, that to Railroad Springs seems to be one of the most valuable. We have had occasion to refer to this subject in former numbers. Another patent has, we see, been granted, entitled "for an Improvement in the Manufacture of India Rubber," to Messrs. Tyer & Helm; it is dated 30th January, 1849. We have seen specimens of the articles made under this patent, and they appear to be very excellent. One of the peculiarities of this species of Rubber is, that no degree of heat—to which it is subjected where used as springs—will injure it, and we are informed that it will bear a heat of 350 degrees without affecting its texture.

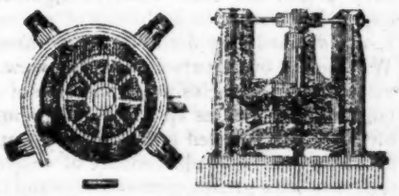
India Rubber Springs, as sometime since was predicted, seem gradually to be taking the place of those made of steel. Mr. Knevitt, of New York, the agent, to whose advertisement inanother column, we would call our readers attention, has applied them, as we learn, in all kinds of ways, to Railroad Cars, Presses, Carriages, to Punching Machines, and is about applying them to a Trip-Hammer in an ingenious manner, so as not only to take off the jar and save the wear and tear of the machine, but also to increase the blow. We understand some experiments upon them were made last week at the Navy Yard in Boston; 4 rings of 5¼ inches diameter were put under a pressure of 25 tons by a Hydraulic Press; they were reduced to half the usual size, and returned again to their original shape. The were also placed over ice in the coldest weather which we have had this winter, but the elasticity of the Spring was not affected.

PATENT MACHINE MADE HORSE-SHOES.

The Troy Iron and Nail Factory have always on hand a general assortment of Horse Shoes, made from Refined American Iron. Four sizes being made, it will be well for those ordering, to remember that the size of the shoe increases as the numbers—No. 1 being the smallest.

P. A. BURDEN, *Agent*,
Troy Iron and Nail Factory, Troy, N. Y.

HENRY BURDEN'S PATENT REVOLVING SHINGLING MACHINE.



THE Subscriber, having recently purchased the Right of this Machine for the United States, now offers to make transfers of the right to run said machine, or sell to those who may be desirous to purchase the right for one or more of the States.

This machine in now in successful operation in ten or twelve iron works in and about the vicinity of Pittsburgh, also at Phœnixville and Reading, Pa., Covington Iron Works, Md., Troy Rolling Mills, and Troy Iron and Nail Factory, Troy, N.Y., where it has given universal satisfaction.

Its advantages over the ordinary Forge Hammer are numerous—considerable saving in first cost; saving in power; the entire saving of shinglers, or hammersman's wages, as no attendance whatever is necessary, it being entirely self-acting; saving in time from the quantity of work done, as one machine is capable of working the iron from sixty puddling furnaces; saving of waste, as nothing but the scoria is thrown off, and that most effectually; saving of staffs, as none are used or required. The time required to furnish a bloom being only about six seconds, the scoria has no time to set, consequently is got rid of much easier than when allowed to congeal as under the hammer. The iron being discharged from the machine so hot, rolls better and is much easier on the rollers and machinery. The bars roll rounder and are much better finished. The subscriber feels confident that persons who will examine for themselves the machine in operation, will find it possesses more advantages than have been enumerated.

For further particulars address the snbscriber at Troy, N. Y. P. A. BURDEN.

RAILROAD SPIKES & WROUGHT IRON FASTENINGS.

THE Troy Iron and Nail Factory, exclusive owner of all Henry Burden's Patented Machinery *for making Spikes*, have facilities for manufacturing large quantities upon short notice, and of a quality unsurpassed.

Wrought Iron Chairs, Clamps, Keys and Bolts for Railroad fastenings, also made to order. A full assortment of Ship and Boat Spikes always on hand.

All orders addressed to the Agent at the Factory, will receive immediate attention.

P. A. BURDEN, *Agent*.
Troy Iron and Nail Factory, Troy, N. Y.

Opening of the Cheshire, Sullivan & Central Railroads.

On the 31st ult. the line of railway extending from Boston, by the way of Fitchburgh, Keene, and Windsor, to Northfield, Vermont, was connected by uniting the two ends at Windsor. This gives an unbroken line of 209 miles from Boston

Fitchburgh Railroad	50
Vermont and Massachusetts	10
Sullivan	26
Cheshire	54
Vermont Central	69
	209

We are unabled to give, to-day, full accounts of this interesting event.

Our friend, S. F. BELKNAP, Esq., of Windsor, was "*at home*" on the occasion.

Pennsylvania Central Railroad.

This extensive work, which has progressed with considerable spirit, has fusnished employment to a very large number of laborers for some months past. In addition to these, several of our most enterprising and successful contractors, gentlemen who have been largely engaged on public works for years past, have contracts on the Central railroad, among whom we notice Messrs. John Gaynor, of Minersville, J. Gaynor, of Orwigsburg, and Edward Kearns, of Manheim. These gentlemen have the means to carry on the work to good advantage—and experience and judgement to enable them to execute it satisfactorily.

New york and New Haven.

The compromise between the New York and N. Haven and the Hartford and New Haven companies, amounts to this—that passengers from or to New York may take the boat or the railroad between New York and New Haven, and be sure of a con-

nection. The fare is the same either way. Between New York and Boston $5, and the passenger is to elect, at the time of purchasing the ticket, which route he will take. The mails will be carried, as heretofore, by the boats.

Nashville and Chattanooga Railroad

Our number of the 6th ult, contained a short notice of the Report of the Stockholders of this road. We have since received the Report of the Directors, Treasurer, and Chief Engineer, and are happy to lay before our readers the flattering prospect they present of its early completion. We know of no other road of equal magnitude in this country, that had secured the whole amount necessary for its construction before the commencement of the work. It appears from the report of the Directors that the whole estimated cost of the road, including the road furniture, is $3,130,000, and the amount of means provided for its construction are $3,038,000, leaving only $92,000 to be provided for. The Directors have also taken the wise precaution of securing ample depot grounds at Nashville and Chattanooga, the two most important points on the road, the increased value of which will add no small item to the value of the stock, in addition to the facilities they give to the transaction of business.

The report of the Chief Engineer presents a very minute and satisfactory description of the proposed routes, which is uncommonly favorable for railway construction, requiring a grade of not more than fifty feet in the mile, except at one point, in crossing the Cumberland mountains. As the report of the Engineer presents, in a very condensed form, the facts we wish to present to our readers, we give the greater part of it in his own words:

"As soon as practicable after my acceptance of the office of Chief Engineer, so kindly tendered by you, a corps was organised and a preliminary survey commenced at Nashville. Since that time the surveys have been pushed with diligence over the whole area of country extending from Nashville to the Tennessee River, including a thorough examination of several miles of that stream.

"It soon became evident that there were two points in the road which must control the entire location—the passage of the main chain of the Cumberland Mountain, and the ascent of the first bench of the mountain from the water of Duck River.

"A very laborious examination was made of the main mountain ridge from the head waters of Hickory Creek about Northcut's Cove to Montgomery's Gap—a distance of about 25 miles. In this distance, and indeed for a distance of about 300 miles, extending from the Cumberland Gap to where the mountain abuts on the Tennessee River, the main crest of the mountain is unbroken, except at Montgomery's Gap. The mountain maintains an elevation of 2000 feet above the sea, except at the point above mentioned where a depression of 700 feet occurs. And at this point the ridge is narrow enough to admit of a tunnel about 2200 feet long, at an elevation of a little more than 1100 ft. above the sea.

"At no other point in the mountain was there a ridge sufficiently narrow to admit of a tunnel, nor was there any depression in the ridge, so that the total rise and fall must be distributed on each side of the mountain, disjoined by its wide summit.

"The passage of the mountain at Montgomery's Gap being established, the next object was to find a suitable point for the ascent of the first bench from the Duck river waters. For this purpose there were three points surveyed in the neighbourhood of Beech Grove and Fairfield. These points will be designated as Mat's Hollow, Pan Handle and Straight Creek. Neither of these routes could have been adopted without resorting to grades of 100 feet per mile, and even then at great cost. A survey of Thompson's Creek, the most western point examined, proved still more unfavorable. Norman's Creek afforded the only ascent from Duck river to the Barrens, possessing the requisites of easy grades, freedom from curvature and economy in construction. This became the 2nd fixed point on the line.

While the surveys just enumerated were going forward, another party made a survey from Nashville, through Williamson county to Shelbyville. This line went over a country highly favorable for the construction of a railroad, but the necessity of bending eastward to reach the mouth of Norman's Creek would have increased the distance so much as to render it much less desirable than the line through Rutherford county.

"This fact, together with other important considerations, induced the board to fix upon Murfreesboro as a point, subject to certain condition, which will probably be complied with. Murfreesboro' therefore became a third fixed point in the line.

"In locating the road between these three fixed points, the route from Montgomery's gap to Norman's creek admitted of no doubt. It was deemed very desirable to go through Winchester, but a survey with that view developed such obstacles in the increase of distance and of cost as appeared insurmountable. The line adopted presents every feature desirable in a railroad, economy of construction, favorable grades, gentle curves and long straight lines.

"Indeed this remark may be made more general, and applied to the whole distance now located; and it may not be amiss here to make a few remarks going to show the value of these elements. Some of the most experienced engineers in the country, in locating roads where a very large business is expected, have acted on the supposition that one degree of curvature in a line is a damage of $50. This sum must vary greatly with circumstances; but the fact of such an estimate being made, under any circumstances, will convey some idea of the importance attached to the subject by practical men.—Straight lines on a railroad have a value, apart from that which they derive from the principles of dynamics, in the great security they afford against accidents.

"A survey was made for a branch to Shelbyville, and it was ascertained that such a branch could be made in a distance of eight miles, at a cost of $65,000.

"It is proposed that a light iron of fifty tons per mile should be used on this branch. There is every reason to believe that this branch would be a valuable feeder to the main line, leading, as it does, to a flourishing town in the midst of a rich country, and extending the area of territory tributary to the road.

"To continue a description of the location, the mountain is passed by a tunnel 2200 feet long, with a grade of 105 6-10 feet on each side. On the North Western side, this grade extended 1½ miles, and 4½ miles on the South Eastern side. It is believed that the circumstance of this high grade being concentrated within a space of six miles, is peculiarly fortunate—and that the use of an assistant locomotive, at this point, will, at a trifling cost, render the passage of the mountain easy.

"The line descends Crow Creek valley, very favorable to a point where it leaves that valley, passes near Bolivar, and reaches the Tennessee river. There has not yet been time to examine the end of the line next to Chattanooga.

"It may be said, in relation to the whole route surveyed, that there is no parallel in the world, of a line, located in a region of country varying from 600 to 2000 feet above the sea, combining so many favorable features.

"The graduation is cheap, the gradients are easy, the line is direct and free from curvature, to an extent rarely equalled. This line will complete a union of the South Atlantic coast with the valley of the Mississippi, with grades never exceeding 50 feet per mile, except at the Cumberland Mountain, where the short distance of higher grade will be easily overcome, at a small additional cost for locomotive power. The greatest elevation above the sea, on any part of this line, which is near Marietta, in Georgia, is 1200 feet.—The freedom of this route from ice and snow, must give it a decided advantage over any of the more Northern lines. And all these advantages combined, place it beyond the reach of competition. Your railroad, regarded as one link in this long line, possesses some peculiar advantages. It is protected from competition by a range of mountains 300 miles in length, which can never be crossed by a railroad at any other point than the gap which your road has occupied. It will be one of the cheapest roads to construct in the Union, and the work will be executed with the benefit of all the experience afforded by other similar enterprises. Thousands of costly experiments have been made by other companies, the benefits of which may be enjoyed by you without cost. All the improvements, of which the last twenty years have been so prolific, may now be pressed into your service, as some compensation to Tennessee for the time she has lost.

"Again: your road, through almost its whole extent, traverses a country of unrivalled fertility. No where in the Union can be found a country of similar extent, capable of sustaining so large a population. It would be difficult to predict what this country may become, when a railroad shall have brought brought a market to the door of this hitherto isolated region. Furnish, by this means, an adequate reward to industry, and arouse the dormant energies of this favored land, and you will soon develope resources, agricultural,

mineral, and manufacturing, of which few men now dream.

"It is a mistake to suppose that a city on the sea board will receive all the benefits of such a state of things. For even if Charleston and Savannah could reach the size of New York and Boston, that very circumstance would build up large towns and cities in the interior, or there is no dependance to be placed on the experience of the past. To judge of this, you have but to let your eye follow the lines of railroad and canal from New York and Boston to Buffalo, and see what the result has been there. No human being can give a reason why like causes should not produce like effects here. Nashville, especially, which is the grand depot of the Cumberland valley, must receive a powerful impulse from the general prosperity of the surrounding country.

"When, in addition to these sources of prosperity, we recollect the fact, now universally admitted, that this is to be the great avenue of trade between the Mississippi valley and the South Atlantic coast, no rational man can doubt that your stock will rank with the most valuable in the Union. Thus, it appears, that your shareholders, while they are reaping an ample reward in the improved value of their real estate, are making the best possible investment of their money.

"In accordance with the instructions of the Board, a letting was advertised for the 1st of August, at which the tunnel was let to Messrs Stewart, Ross and Culbertson, who came highly recommended; and they are progressing with the work steadily, though with a force not very large as yet. The six miles constituting the passage of the mountain, has been placed under contract, in such a way as to give every reasonable assurance of their punctual completion, on or before the 1st day of January, 1851. It is believed that the entire line from Nashville to the Tennessee river, can be completed simultaneously with the Tunnel."

We congratulate the people of Tennessee upon the prospect of the early completion of the road.—As yet they can form but a slight idea of the advantages of a direct, cheap, and uninterruped intercourse with the Atlantic coast. The great disadvantage under which they labored, has been the cost of transportation, which, in agricultural products, frequently exceed the cost of production, and in the uncertainty of being able to forward them to a market where the article commands the highest price. A railroad penetrating her interior, and uniting her with the Atlantic cities, is equivalent to a constant and steady market for all her productions; and we think her capacity in this respect is not exceeded by any State in the Union. The main trunk, which she is no constituting, penetrates the State in a manner best adapted to connect with other parts of it by means of branches, and forms a part of the great line of road from the Atlantic to the Mississippi river, to which we expect soon to see efforts made to extend it. Tennessee, from her position, is to be one of the great thorough-fares between the West and the East. A new era has commenced in her history, and we expect to see her move forward in a career of success not exceeded by her most enterprising sister States.

ITEMS.

The Steam Engine.—At least 12,000 machines are now in use in Great Britain, by which the labor of 250,000 horses is saved. Supposing each horse to consume annually the produce of two acres, 500,000 acres are thus set free for other purposes. Dr. Lardner shows that the steam from one pound of coal has a power of raising 667 tons weight of any material to the height of one foot—and that, therefore, an ounce of coal would raise 42 tons one foot high, or 18 pounds a mile in height. Since a force of 18 pounds is capable of drawing two tons upon a railway, it follows that an ounce of coal can draw two tons a mile, or one ton two miles, upon a level railway. The circumference of the earth measures 25,000 miles; if it were begirt by an iron railway, a load of one ton would be drawn round it in six weeks by the mechanical power that dwells in the third part of a ton of coals.—*Railway Record.*

A Novel Steam Engine.—It will be remembered by our readers, that at the meeting of the British Association at Cambridge, considerable sensation was produced by M. Boutigny, who brought before the meeting a series of experiments on what he calls the "spheroidal" state of water, and the remarkable phenomenon of freezing water in red hot crucibles under the influence of this peculiar condition. At a recent meeting of the Academy of Sciences, at Paris, M. Boutigny announced, that by the persevering efforts of a young engineer, M. Testud de Beauregard, a steam engine had been constructed which was moved by the vapor of water in its spheroidal state. This is a machine of one horse power, the boiler of which is so small that it can easly be carried in the pocket. It was was also stated that two other machines were in progress: and that a third, of 400 horse power, was about to be made in England.—From a communication to *La Presse*, we learn that the boiler is placed in a bath of melted lead, and water projected in small quantites at a time upon its heated surface.—The spheroidal state is produced; and although the temperature of the water never rises above 190 degrees, the elastic force of the vapor given off is found to be very far superior to that of steam in its ordinary conditions; and, if we understand the somewhat obscure descriptions given, a portion of water is decomposed, as in Prof. Grove's beautiful experiments, and the additonal force of the gases is rendered available. We may briefly state, for the benefit of those who may not be familiar with Boutigny's experiments, that if water is projected upon a metal plate heated in dull redness, it is not vaporised at once, but it forms itself into a sphere, and rolling with great rapidity over the heated surface evaporates with comparative slowness. This is the spheroidal state—a remarkable physical condition is produced, in which even the ordinary powers of chemical affinity are suspended, but the vapor of which appears to obey other laws than those of steam. We may therefore hope that we are on the eve of a great improvement in the employment of heat as a motive power.—*Literary Gazette.*

A New Railway Wheel.—To obviate the frequent accidents from breaking of wheel tires, a new wheel without tires, made of cast iron, has been invented and patented, accerding to the *Manchester Examiner*, by Mr. R. Heath, of that city. It is cast, of course in one piece, and "the difficulty to overcome," says our authority, "to make a wheel of cast iron sufficiently strong has been that of a nice calculation, so as to make it equal in all its parts, and to secure a mode of casting which ensures the contraction of the metal being equal in all its parts. The test applied to try its strength was to hoist the wheel to a height of 14 feet, and then let it fall upon a bed of solid iron. The only effect upon it of this test was, an indentation similar to that which wrought iron might be expected to discover. Another test was to let fall upon the boss, or centre portion of the wheel, a tup, or large ball of iron, of 9 cwt., from the same height; and this heavy mass bounded off without producing the least impression upon it. The patent wheel will be the same weight as those now in use, but may be made at a reduction of 40 per cent. in price.—*Record.*

Atmospheric Pile-driving Machine.—In the exhibition of the Society of Arts, now open, is a model of an "Atmospheric Pile-driving Machine," patented and exhibited by Messrs. Clarke and Varley, whose efforts in the cause of atmospheric propulsion we have frequently noticed. It is thus desbribed in the Society's catalogue:

"This machine consists of a vacuum cylinder of wrougut iron, closed at the bottom, and open at the top, having an air tight piston, and self acting slide gear. This is fixed to any convenient part of the frame of a common pile engine. The piston rod is connected to a chain which passes over a fixed pulley on the top of the engine; to the end of this chain is suspended a pulley, over which passes a second chain; one end of the chain is attached to the ram, and the other, passing down under the bottom of the frame is brought up and affixed to the head of the pile. The power is derived from a small steam engine fixed at any convenient spot, which works an air pump for producing the exhaustion. Communication is made between the air pump and the pile driving machine by small wrought iron tubes, connected together by flexible joints of vulcanised India rubber.—*Railway Record.*

"Ancient" and Modern Engines.—A local paper gives an account of the sale of some engines, by auction, recently employed by the Renfew and Paisley railway company, the names of which towns they respectively bore. We are sorry to say that both were bought to be broken up. The difference of gauge, we believe, was the cause of the sale. One of them, the auctioneer stated, was the second locomotive used on the rail for the transmission of passengers in Scotland, having been built about 18 years ago, at Newcastle, by the late celebrated George Stephenson, for the Garnkirk company, and thence transferred to the Paisley and Renfew company. The wheels were of wood, and altogether the contrast it exhibited to the beauti-

tiful and powerful locomotive of the present day was very striking. It realised £13; the original cost was somewhere about £750.—The other two were built in Glasgow not many years ago, cost £1,150 each, and had not been long in use.—*Railway Record.*

Road to the Pacific.

The bill introduced into the Senate by Mr. Benton, to provide for the construction of a railroad from the Mississippi to the Pacific, contemplates a magnificent enterprise. It is supposed to commence at the Bay of San Francisco and to terminate at St. Louis.

A breadth of one mile from the frontier of Missouri to the Pacific is to be reserved for the purpose of laying down, at once, one track of railroad—room being lett for other tracks hereafter, and for other sorts of roads. A per centum of the proceeds of the public land sales is to be applied to the construction of the work. It is to be an undertaking by the government, without the cooperation of individual stockholders. The government is to build the road, and to own it whon built. A branch road is to run to Oregon and to connect with the Coiumbia river.

Mr. Benton, in submitting this bill, accompanied it by a characteristic speech, able, eloquent and earnest. He will doubtless continue to press it on every suitable occasion; for it is evidently a favorite projeci with him—his heart is in it. We subjoin the concluding portion of his speech, which was delivered in the Senate on Wednesday:

"The road I propose is necessary to us, and now. We want it now. The state of our possessions on the Pacific demands it.—The time to begin has arrived. All the necessary information is on hand. The means are ready. The title to Oregon is settled, and a government established there, and population is growing up. California is acquired, people are there, and a government must follow. We have a fleet on that coast: troops there, and going. Streams of population are concentrating there. Since the discovery of the new world by Columbus there has not been such an unsettling of the foundations of society. Not merely individuals and companies, but communities and nations are in commotion, all bound to the setting sun—to the gilded horison of western America. For want of an American road, they seek foreign routes, far round, by sea and land, to reach, by an immense circuit, what is a part of their own land. Until we can get a road of our own, we must use and support a foreign route, but that is a temporary resource, demanded by the exigency of the times, and until we can get our own ready. Never did so great an object present itself to the acceptance of a nation. We own the country from sea to sea, from the Atlantic to the Pacific, and upon a breadth equal to the length of the Mississippi, and embracing the whole temperate zone. Three thousand miles across, and half that breadth is the magnificent parallelogram of our domain. We can run a national central road, through and through, the whole distance, under our flag and under our laws. Military reasons require us to make it: for troops and munitions must go there. Political reasons require us to make it; it will be a chain of union between the Atlantic and Mississippi States. Commercial reasons demand it from us; and here I touch a boundless field, dazzling and bewildering the imagination from its vastness and importance. The trade of the Pacific, of the western coast of North America, and of eastern Asia, will all take its track; and not only for us but our posterity. That trade of India which has been shifting its channels from the time of the Phoenicians to the pesent, is destined to shift once more, and to realise the grand idea of Columbus. The American road to India will also become the European track to that region.

"The European merchant, as well as the American, will fly across our continent on a straight line ta China. The rich commerce of Asia will flow through our centre. And where has that commerce ever flowed without carrying wealth and dominion with it? Look at its ancient channels, and the cities which it raised into kingdoms, and the populations which upon its treasures became resplendent in science, learning and the arts. Tyre, Sidon, Balbec, Palmyra, Alexandria, among its ancient emporiums, attest the power of this commerce to enrich, to aggrandize, and to enlighten nations. Constantinople, in the middle ages, and in the time of the crusades, was the wonder of western Europe; and all because she was then a thoroughfare of Asiatic commerce. Genoa and Venice, mere cities, in later time, became the match of kingdoms, and the envy of the kings, from the mere divided streams of this trade of which they became the thoroughfare. Lisbon had her great day, and Portugal her preeminence during the littie while that the discovery of the Cape of Good Hope put her in communication with the east. Amsterdam the city of a little territory rescued from the sea, and the Seven United Provinces, not equal in extent to one of our lesser States, became great in arms, in letters, in wealth, and in power, and all upon the East India trade. And London, what makes her the commercial mistress of the world—what makes an island, no larger than one of our first class States, the mistress of possessions in the four quarters of the globe, a match for half of Europe, and dominant in Asia? What makes all this, or contributes most to make it, but this same Asiatic trade? In no instance has it failed to carry the nation or the people which possessed it, to the highest pinnacle of wealth and power, and with it the highest attainments of letters, arts and sciences. And so will it continue to be. An American road to India, through the heart of our country, will revive upon its line all the wonders of which we have read—and eclipse them. The western wilderness, from the Pacific to the Mississippi, will start into life under its touch. A long line of cities will grow up. Existing cities will take a new start. The state of the world calls for a new road to India, and it is our destiny to give it, the last and greatest. Let us act up to the greatness of the occasion, and show ourselves worthy of the extraordinary circumstances in which we are placed, by securing while we can an American road to India—central and national—for ourselves and our posterity, now and hereafter, for thousands of years to come."

The State of Illinois, and the St. Louis R.R.

The people of Illinois are petitioning congress for a very large grant of lands, for the construction of a railroad from Cairo, at the confluence of the Ohio and Mississippi rivers, to Galena and thence to Chicago—a railroad of some seven hundred miles long, extending through the entire length of that immense State. The quantity of land asked, would probably be enough to construct the entire road; that is, if expended with ordinary prudence and integrity, and not after the fashion of the former disbursements upon the same work.

The same people of Illinois, by their Legislature, aome twenty-five years ago, remonstrated against the coustruction of the national turnpike, through that State to St. Louis, whence it was to have been continued to its contemplated terminus, Jefferson city, and continued to remonstrate, and to oppose the construction of the road through Illinois, unless it should cross the Missisisppi at Atlon, leaving St. Louis 24 miles to the south of its course. In consequence of that opposition, the appropriations which had previously been made annually, were diminished, then withheld, and finally refused.

It is not denied that the Cumberland road met annually an obstinate opposition in Congress, from those who arrayed themselves systematically against all appropriations for internal improvements; but it was ineffectual, so long as the western members were united in its support. It was considered that the national faith was pledged to the west, to carry out this great measure, and so long as the west stood together in regard to it, there was force enough in the middle and eastern Atlantic States to carry it. But when Illinois, at the prompting of a few lot holders in Alton, threw the firebrand of dissention into the ranks—when the west ceased to ask harmoniously and unitedly for the annual appropriations, those who without any special interest in the matter, had been accustomed to vote with them for this measure, from a sense of obligation, became lookwarm; the enemies of the measure pushed their advantage, and this great enterprise was knocked in the head.

During these twenty-five years that have passed since the perpetration of that unwise act, the most direct route from the east to St. Louis, has been by the meanders of the Ohio and Mississippi rivers, or by the still more circuitous route of the lakes; while the interior of Indiana and Illinois, lying along the proposed route of that road have continued to be inaccessible by any rapid and agreeable mode of transit. The travelling public, have lost the advantage of a fine turnpihe, passing on a direct route from Wheeling to St Louis, over which stages would have been daily and hourly rolling with immense numbers of passengers. The public we say, have lost the vast benefits that might have been enjoyed, through the completion of that important

thoroughfare; but the States of Indiana, Illinois and Missouri, have been the greatest losers. Illinois, by an act of unpardonable selfishness, has greatly injured herself and her neighbors.

The lessons of the past should be instructive. We refer to the above facts, not for the purpose of reviving unpleasant recollections, but for the profitable admonitions they afford. The State of Illinois, which refused to *the Nation* the right of way through her territory for a road of great public and national benefit now asks *the Nation* to give her a vast am't of public land to make a very long road, lying entirely within the bounds of that State, and useful only or chiefly to her citizens!

But that is not all. We again attempt to construct a great national avenue for freight and travel, from St. Louis to the Atlantic, by means of a railroad, and ask of Illinois to grant to a company, for that beneficent purpose, corporate powers, and the right of way, and she is disposed to refuse. And why?—Illinois wishes to force the travel to Alton: the travelling public want to go to St. Louis. We ask the ordinary facilities for passing through Illinois, which every state is bound, not merely in courtesy, but in justice, to grant to the citizens of every other state—and we are told that we can have it, by going twenty four miles out of our way, taking a meal at Alton, and paying a tax in the shape of porterage to her citizens. This is a small business—a very small business for a sovereign state, and we hope Illinois will rise above it. —*Cincinnati Gazette.*

Ancient Modes of Travelling.

Equestrian Travelling.—Those who are not tolerably familiar with the memoir literature of the sixteenth and seventeenth centuries will have difficulty to comprehend how our ancestors moved about from place to place, and carried on the business of communication from distant inland parts. The mode of conveyance was so universal and so established, that it rarely offers itself to any especial notice. Till the beginning of the eighteenth century we were almost wholly an EQUESTRIAN people. Harrison describes "the excellent paces" of our saddle-horses as peculiar to those of our soil; and says, that "our countrymen, seeking their ease in every corner that it is to be had, delight very much in this quality." From the days of the Wife of Bath, "girt with a pair of spurres sharp," to the days of Queen Elizabeth, we have scarcely a trace of ladies accomplishing their peregrinations in any other manner than that which Chaucer has recorded:—

"Upon an ambler easily she sat."

Luxury had its appliances ready for this almost exclusive mode of travel. "A lover of his country," who in 1678 saw that coaches would be the ruin of the kingdom, says, "before these coaches were set up travellers rode on horseback; and men had boots, spurs, saddles, bridles, saddle-cloths and good riding suits. * * Most gentlemen, before they travelled in their coaches, used to ride with swords, belts, pistols, holsters, portmanteaus and hat-cases; for when they rode on horseback, they rode in one suit, and carried another to wear at their journey's end, or lay by the way. * * And if they were women that travelled, they needed to have safeguards and hoods, side-saddles and pillions, with strappings, saddle or pillion cloths, which for the most part were either laced or embroidered." The saving of much of this expenditure by travelling in coaches, the writer holds, is the ruin of trade. "For, formerly, every man that had occasion to travel many journies yearly, or to ride up and down, kept horses for himself and his servants, and seldom rid without one or two men." In 1526, the Earl of Cumberland rode from Skipton to London with thirty-three servants. (*Whitaker's Craven.*) In 1572, the Earl of Shrewsbury writes to a dependent: "I think my company will be twenty gentlemen and twenty yeomen, besides their men and my horsekeepers. I think to set forwasd about the 11th of September, from Wingfield to Leicester, with my bed, and to make but 4 days journey to London. (*Lodge's Illustrations.*) In 1640, the wife of the last Earl of Cumberland rode from London to Londesborough, having thirty-two horses in her train; and the journey occupied eleven days. These slow progresses were the relics of the old times of sumpter-horses, when princes and nobles travelled with vast cavalcades, like an oriental caravan. We must not imagine that all equestrian travelling was at this slow rate.—James I. of England was indeed near five weeks on his paddle saddle, in his royal progress from Edinburgh to London; but Sir Robert Carey, determining to be the first to tell James that he was King of England, stole out of Richmond Palace at 3 o'clock of the morning of the 24th of March, and reached Edinburgh on the night of the 26th, the king having gone to bed at the time he had knocked at the gate. This ride of 400 miles in seventy hours, gives one an elevated notion of the travelling accommodations of two centuries and a half ago. But it must be born in mind that such instances were the exceptions to the rule of slow travelling.—Although the Post was not established by law, there were post-masters at the end of the sixteenth century on all the great lines of roads; and, for a sufficient consideration, they would furnish such a traveller as Sir Robert Carey with abundant horses, that he might ride till they dropped, as indeed he records one of his horses to have done. Then, again, although the roads were bad, the equestrian had many a mile of the smooth turf of an unenclosed country to gallop over. Let it not be forgotten, that if Sir R. Carey rode from London to Edinburgh at the rate of six miles an hour, keeping on night and day, with relays of horses, the general communication of the country was so slow, that although Elizabeth died at two o'clock of the morning of Thursday the 24th of March, and James was proclaimed king, at London, on the same morning, "yet the news of it reached not the city of York until Sunday, March the 27th." (*Continuation of Stow's Annals.*) The days before the Post were days when those who left their houses for distant parts of England were more separated from their friends than the North American emigrants of our own times. The transmission of intelligence across the Atlantic is now an easier thing than the old conveyance of a letter 200 miles upon a cross road. The historian of Craven, speaking of 1609, says, "at this time the communication between the North of England and the universities was kept up by carriers, who pursued their tedious but uniform route with whole trains of pack-horses. To their care were consigned not only the packages but, frequently the persons of young scholars. It was through their medium also that epistolary correspondence was managed; and as they always visited London, a letter could scarcely be delivered in Yorkshire and Oxford in less time than a month." Charles I. seems, in 1635, to have resolved to remedy this evil by the establishment of the home post-office. In his proclamation of that year he says that there had been no certain intercourse between England and Scotland; and he therefore commanded a running post to be established between London and Edinburgh, to go thither and come back again in six days; and for the other roads there are promised the same advantages. In 1660 the General Post-office was established by Act of Parliament: and all letters were to be sent through this office, "except such letters as shall be sent by coaches, common known carriers of goods by carts, waggons and pack-horses, and shall be carried along with their carts, wagons and pack-horses respectively" The Post-master General and his deputies, under this statute, and no other person or persons, "shall provide and prepare horses and furniture to let to hire unto all thorough Posts and persons riding in Post, by commission or without, to and from all and every the places of England, Scotland and Ireland, where any Post-roads are." We find, by various clauses of this Act, that the Post-master was also to furnish a guide with a horn to such as ride Post—that he was to furnish horses within half an hour after demand—and that if he could not accomplish this, persons might hire a horse where they could, and sue the Post-master for a penalty. The country Post-master was an ancient functionary, who had long been in the habit of attending to the wants of those who bore letters, inscribed "haste, haste, Post-haste." He was generally an inn-keeper. Taylor, the water poet, in his "Pennyless Pilgrimage" from London to Scotland, in 1618, has described one that might rival any Boniface on record: "From Stamford, the next day, we rode to Huntingdon, where we lodged at the Post-master's house, at the sign of the Crown; his name is Riggs. He was informed who I was, and wherefore I undertook this my pennyless progress: wherefore he came up to our chamber and supped with us, and very bountifully called for 3 quarts of wine and sugar, and four jugs of beer. He did drink and begin healths like a horseleech, and swallowed down his cups without feeling as if he had the dropsy, or nine pound of sponge in his maw. In a word, as he is post, he drank post, striving and calling by

all means to make the reckoning great, or to make us men of great reckoning. But in his payment he was tired like a jade, leaving the gentleman that was with me to discharge the terrible shot, or else one of my horses must have lain in pawn for his superfluous calling and unmannerly intrusion.

Canada.

Reciprocity Bill.

The House, Feb. 3, was resolved into a committee of the whole to consider the following resolution, introduced by Mr. Merritt, That it is expedient to provide for the free admission of grain and breadstuffs of all kinds, vegetables, fruit, seeds, animals, hides, wool, butter, cheese, tallow, horns, salted and fresh meats, ores of all kinds of metals, ashes, timber, staves, and lumber of all kinds, the growth or production of the United States of America, into Canada, whensoever similar articles, the production of Canada, shall be admitted without duty into the said United States.

Mr. Smith (Frontenac) moved in amendment, that no action should be taken on this resolution, till it was reported to the Provincial Government that the American Congress had passed the Reciprocity Bill. After a long debate, the amendment was put and lost by a large majority.

Dr. Davignon then moved to strike out several words of the motion, which was lost also.

Mr. Laurin made a similar motion, also lost, and the main motion carried.

The committee then rose and reported progress. The principal speakers were, for the motion, Messrs Merritt, Papineau, Holmes, Egan, Cameron (Kent), Notman, Hincks, Wilson, Flint, Robinson, Wetenall, and Nelson; against it, Messrs. Stevenson, Laterriere, and Smith of Frontenac.

Navigation Laws.

Resolution proposed by the Hon. F. Hincks, on which to found an Address to Her Majesty, for the Repeal of the Navigation Laws.

Resolved—As the opinion of this Committee, that an humble address be pressented to Her most Gracious Majesty, to assure Her Majesty of the devoted loyalty of the people of this Province, and of their sincere attachment to Her Majesty's person and Government—To represent to Her Majesty that this House feels it to be a duty incmbent upon it to take the earliest opportunity to assure Her Majesty that the sentiments of the people of this Province, on the subject of the Repeal of the British Navigation Laws, which were expressed to Her Majesty in a joint address from the two Houses of the Provincial Parliament in the month of July, 1847, remain unchanged; that delay in removing the present restrictions on the employment of Foreign Shipping, would, in the opinion of this house, be highly injurious to the Carrying Trade of the St. Lawrence; that, in order to secure the trade, the Province, relying on the continuance of the protection which was then enjoyed by colonial products in the markets of Great Britain, incurring a large debt for the construction of a line of Ship Canals, by means of which the cost of Inland Transport has been very materially reduced; that, owing to the difficulties attending the Navigation of the St. Lawrence, the greater length of the voyage, and the higher rates of insurance, freights are likely at all times to range higher at Quebec than at New York, but that the practical effects of the Navigation Laws is not only to prevent the posibility of a fair competition between the two routes, but actually to give direct encouragement to American shipping, not only through the Canals of the State of New York, but at the Seaports of the United States; that, at the Seaports of the United States, shipping can generally be procured to carry any quantity of produce that may be offered, without a material increase of freight, but that even in case of scarcity, as the navigation is open throughout the year, Foreign Shipping can readily be procured in Europe at fair remunerative rates of freight, and without serious inconvenience or loss of time; that at Quebec, on the other hand, the exporter is compelled to rely on the regular traders to the port, so that when an unusual accumulation of produce takes place, vessels cannot be procured, and freights immediately rise to most exorbitant rates; that no means exist of engaging British Shipping to meet the sudden demands which the nature of trade causes, as such shipping is seldom to be met with at American ports unless under specific orders, or the engagements of a Charter; that the early closing of the navigation of the St. Lawrence renders it difficult, if not impossible. to obtain shipping from England to supply the sudden demands which, from the nature of the trade, are constantly arising, and which could readily be supplied at the American seaports, whence vessels would at any time come round to the St. Lawrence, if assured of remunerative freights; that the uncertainty which at all times prevails as to the route by which the product of the west will be transported to the sea board, must operate to prevent British vessels coming to the St Lawrence in sufficient numbers to ensure moderate freights during the shipping season, while the scarcity of shipping and the immediate rise of freight to England, whence a large supply of products is sent by the St. Lawrence, has the effect of diverting those products through the Erie Canal to New York. That the navigation laws have likewise had a most injurious influence on the import trade of the Province; that it has not unfrequently happened that Canadian importers of sugar being unabled to procure British vessels on any terms at Havana and other foreign ports, have been compelled to import their cargoes in American bottoms, to New York, and thence through the American Canals to Canada, when, but for the restrictions imposed by the Navigation Laws, they would have imported them by the St. Lawrence in foreign bottoms, which could have been readily procured. That this House has observed with much satisfaction, that a Bill was introduced into the House of Commons during the last Session of the Imperial Parliament for the Repeal of the Navigation Laws, and this House being of opinion that the provisions of that Bill are calculated to remove those restrictions from which the trade of this Province is now suffering, most humbly pray that Your Majesty wili be graciously pleased to recommend the subject of the repeal of the Navigation Laws to the favorable consideration of the Imperial Parliament. And this House would further humbly pray, that Your Majesty will be graciously pleased to authorize the Governor of this Province to permit Foreign Vessel to navigate the St. Lawrence above Quebec, under such restrictions as His Excellency may n his wisdom see fit to impose.

MINING,

We have heard various estimates made of the value of gold now in existence in the world, but these can but be approximate amounts, and we think that whatever is raised will be absorbed without much effect on the currency. Look at the annnal loss in wear and tear, gilding, &c. Many of our readers may be surprised to learn that since 1816 our own Mint has coined the enormous amount of *ninety-five millions of sovereigns*—of course the same gold may have passed several times through the hands of the coiners. In France, where the legal tender is silver, the amount of francs in circulation is estimated at sixty-five millions sterling. Science has made great advances in our day, but probably in none more than in chemistry, and its practical illustration was prettily brought out in the separation of the gold contained in the Sycee silver, which the Chinese paid us on account of the war expenses, and from which £10,000 worth was extracted. This silver, as the name imports, is pure, the Chinese having attained the art of freeing it from all extraneous matter except gold—and probably of this they might not be aware, certainly the silver was no worse for it. It is taken in payment of duties by the Government, and has on each lump a distinguished mark, giving the weight, with some other particulars, and thus passes currently. In this state it is handed over to our government, at so much per ounce, and the ransom duly paid. Upon arrival in England the admixture of gold was discovered, and its separation determined upon. Under the old system this would have been a difficult and expensive process, but by the new mode it was easily effected, and, as will be seen by the following description, nothing is lost. An ingenious inventor discovered that platina retorts were not affected by acids;—this led to all the subsequent steps. The cost of one of these vessels, we may mention, is about £500. The silver, in the first instance, is granulated by being thrown into water whilst in a liquid state. This exposes a larger surface to the action of the sulphuric acid in which it is placed in the platina retort. The acid having a greater affinity to the silver than the gold, the latter is precipitated in a brownish powder, and the acid and silver in solution is syphoned off into another retort—the powder is smelted, and becomes an ingot of pure gold. Copper, however, has a greater affinity to the acid than silver, and by the introduciion of chippings of this metal, the acid deserts the silver and joins the copper—leaving the former as it had done the gold; this residuum is smelted like the other, and comes out pure silver.—If the copper was wanted, nothing remains to be done but to throw in scraps of iron, and the faithless acid again changes its affections and leaves the copper. But this is not required; the liquid is crystalized, and we have, after making these various uses of it, *sulphate of copper*, which is extensively used by our manufacturers as a blue dye.—*Railway Chronicle.*

COMMERCIAL.

Trade and Commerce of the Canals.

We arranged and published a short time since, a tabular statement showing the total quantity of produce and merchandize, left at tide water during the season of canal navigation in 1846, 1847 and 1848. The yearly returns from the Collector at Buffalo was received at the Department on Thursday, by which we are enabled to furnish to-day additional tables giving the movement of produce in that section.

It will be seen by the following comparative table that the movement of all articles designated under the head of The Forest, including the products of animals, the past year, when compared with 1847, show a slight increase, while those under the head of Vegetable Food have fallen off, particularly flour, wheat and corn.

Statement showing the total quantity of each article first cleared on the canal at Buffalo and Black

Rock, from the opening to the close of canal navigation, during the years 1846, 1847 and 1848:

	1846.	1847.	1848.
THE FOREST.			
Fur and peltry, lbs	580,070	401,988	458,371
Product of Wood.			
Boards and scantling.....ft.	23,440,447	35,377,192	36,481,794
Shingles.....M.	418	510	3,829
Timber..cubic ft.	213,768	314,429	521,783
Staves.....lbs.	73,201,932	70,273,772	87,754,638
Wood.....cords	18,039	21,943	27,408
Ashes.....bbls.	24,643	15,237	14,288
AGRICULTURE.			
Product of Animals.			
Pork.....bbls.	61,514	56373	67,412
Beef..... "	28,503	38,280	45,005
Bacon.....lbs.	2,220,773	3,705,841	7,287,418
Cheese..... "	4,973,885	6,918,046	9,829,210
Butter..... "	4,662,192	6,842,511	7,416,223
Lard..... "	5,951,237	3,577,835	6,071,370
Wool..... "	4,117,886	5,926,116	5,999,830
Hides..... "	788,956	452,467	432,203
Vegetable Food.			
Flour.....bbls.	1,437,994	2,068,686	1,395,664
Wheat.....bush.	3,637,366	5,836,730	4,065,641
Rye..... "	1,895	77,198	2,857
Corn..... "	1,121,089	2,996,842	2,218,219
Barley..... "	3,683	16,325	24,664
Other grain. "	186,625	412,369	288,479
Bran and ship stuffs..... "	60,834	155,636	41,391
Peas & beans"	6,265	8,341	4,846
Potatoes.... "	774	208	7,608
Dried fruit..lbs.	290,492	1,104,318	217,800
All other Agricultural Products.			
Cotton.....lbs.	252,982	360,759	.....
Tobacco.... "	2,511,380	1,080,843	264,458
Clover and Grass Seed..... "	1,113,867	2,241,272	1,625,591
Flax seed.... "	971,796	2,541,200	2,760,793
Hops..... "	2,118	8,246	.....
MANUFACTURES.			
Domestic spts, gals.	321,533	910,191	1,162,769
Leather.....lbs.	1,142,256	829,922	493,705
Furniture.... "	1,256,630	1,289,826	1,315,908
Bar & pig lead "	517,299	352,622	96,211
Bloom and bar iron..... "	13,516	36,305	81,228
Pig iron..... "	22,078	72,407	129,500
Iron ware.... "	88,852	85,563	352,500
Domestic woollens..... "	7,545	23,570	27,613
Domestic cottons	11,198	12,897	32,886
Other Articles.			
Stone, lime, and clay.....lbs.	6,531,876	10,416,439	7,848,648
Gypsum..... "	6,410	.....	5,000
Mineral coal, "	3,286,162	1,566,133	6,899,000
Sundries ..... "	11,195,191	14,517,094	22,500,367
Total tons....	478,917	710,943	602,250

The subjoined comparative table gives the quantity of each impotrant article, *first cleared*, at the *three* important *termini* of our State canals. We deem it unnecessary to go into any details in regard to the increase or the diminution of the shipments at these points, compared with previous years. The falling off in the shipments of vegetable products at these points can be seen at a glance, and the causes for the same are well known to all connected with the commerce of the our canals or rivers.—There has been some increase in the products of the Forest and Animals, as will be seen in the subjoined.

Statement showing the aggregate quantity of each article first cleared on the canal at Buffalo, Black Rock and Oswego, from the opening to the close of canal navigation, during the years 1846, 1847, and 1848:—

	1846.	1847.	1848.
THE FOREST.			
Fur & Peltry..lbs.	601,493	406,106	513,853
Product of Wood.			
Boards and scantling.....ft.	49,858,613	69,673,236	67,671,096
Shingles.....M	4,467,918	8,867,510	20,245
Timber..cubic ft.	351,081	357,854	642,113
Staves.....lbs.	65,339,406	70,820,624	90,969,722
Wood.....cords.	18,197	22,104	27,750
Ashes.....bbls.	32,243	21,062	22,226
AGRICULTURE.			
Product of Animals.			
Pork.....bbls.	71,516	64,751	91,584
Beef..... "	37,187	41,725	46,485
Bacon.....lbs.	2,769,129	3,826,299	9,702,081
Cheese..... "	9,841,911	11,804,317	15,225,755
Butter..... "	7,326,745	9,350,716	10,229,568
Lard..... "	6,504,300	4,279,400	10,332,364
Wool..... "	4,363,688	6,221,913	7,202,175
Hides..... "	880,201	528,874	497,423
Vegetable Food.			
Flour.....bbls.	1,909,312	2,679,180	1,010,501
Wheat.....bush.	4,070,812	6,550,261	4,865,936
Rye..... "	50,293	105,354	56,364
Corn..... "	1,468,836	3,930,272	2,561,747
Barley..... "	98,557	110,458	260,520
Other grain. "	250,010	450,003	348,981
Bran and ship stuffs..... "	821,413	1,385,827	4,035,801
Peas & beans "	13,972	16,278	33,410
Potatoes .... "	9,607	3,805	7,661
Dried fruit.. "	292,208	1,132,162	217,820
All other Agricultural Products.			
Cotton.....lbs.	252,983	516,275	.....
Tobacco..... "	2,669,536	1,196,071	305,122
Clover and Grass Seeds..... "	1,159,108	2,660,673	1,952,806
Flax seed.... "	972,271	2,708,847	2,896,627
Hops..... "	50,821	141,684	180,645
MANUFACTURES.			
Domestic spts, gals.	358,216	952,351	1,214,451
Leather.....lbs.	1,642,961	1,123,265	681,143
Furniture.... "	1,623,395	1,480,656	1,533,803
Bar & pig lead,"	692,224	371,592	96,211
Bloom and bar iron..... "	325,916	81,160	87,016
Pig iron..... "	182,114	506,368	1,044,096
Iron ware.... "	109,478	111,158	408,312
Domestic woollens..... "	129,218	132,075	98,170
Do. cottons.. "	136,594	130,818	206,120
Salt.....bush.	.....	334,836	575,078
Other Articles.			
Stone, lime, and clay.....lbs.	7,881,004	14,759,945	10,413,227
Gypsum ..... "	140,310	.....	5,000
Mineral coal. "	3,286,162	1,622,133	7,526,178
Sundries..... "	13,693,803	19,190,233	26,289,062
Total tons....	627,502	914,888	815,621

—*Albany Evening Journal.*

New York Railroads.

In the present number we give a condensed summary of the Reports of several New York Railroads made to the Legislature. We intend to follow up the plan, and give a similar abstract of others, in future numbers of the Journal.

AUBURN AND ROCHESTER.

The length of this road is 78 miles, and its cost to the 31st of Dec., 1848,.....$2,644,520 35

This sum has been expended as follows:

For purchase of land....$182,620 42		
" buildings.....	96,811 74	
" engines.....	105,565 00	
" cars.....	70,105 00	
" other items.....2,259,411 80		
Total.....2,714,513 96		
Deduct amount rec'd for old iron.....	69,993 61	
		2,644,520 35

The present indebtedness is as follows:

Bonds issued by the company.....	153,000 00	
State stocks.....	200,000 00	
Bills payable.....	75,000 00	
Balance due for iron, about	160,000 00	
Total indebtedness...		588,000 00

Receipts for the year ending Dec. 31:

From 100,782 through passengers.....	250,794 45	
" 108,477½ way "	107,676 85	
" freight.....	83,136 85	
" transp'n of mails...	11,700 00	
" other sources.....	1,413 72	
Total receipts.....		454,721 87

The whole weight of freight moved in 1848 was 57,762,911 pounds; the amount expended for operating the road $188,027 76. A dividend of four per cent was made on the 1st February, and a like one on the 1st of August. The company own the engine-house in Rochester, and half the one in Auburn; also 3 machine shops, 4 six wheeled locomotives, 14 eight wheel do., 1 ten wheel do., 19 passenger and 71 freight cars. Number of miles run by engines, 295,371; average number of men employed, 287. Besides these, 451 have been employed in relaying the track with heavy rails.

TONAWANDA.

The capital stock of the Tonawanda railroad company is $840,000, and the amount paid in $794,700. Amount paid for the construction of the road, includingthe purchase of land, buildings, materials and engines, after deducting for land and materials resold, up to 1st Jan. 1848.....$974,865 66

Indebted on account of the sale of the credit of the State under act of May 1, 1840.....	100,000 00
For money borrowed in 1848 to reconstruct with heavy rail.....	65,000 00
Total indebtedness.....	165,000 00

There is due this road the amount deposited with the Comptroller under the provisions of the act of May, 1840, besides the interest accumulated on such deposite..... $12,750 00

Other dues for property.....		31,160 65
Total amount due.....		43,910 65
Amount received from passengers.....	169,963 27	
" " for freight...	46,308 20	
" " mails....	6,099 25	
" " from other sources.....	53,817 38	
Total receipts...,....		276,188 10
Amount paid for repairs, engines, cars, &c.....		70,084 75
" " running the road.....		28,142 02
Total expenditures.....		98,226 77

Two dividends have been declared and paid, amounting to $49,427,00. The company own five engine-house and machine shops, 6 locomotive engines, and 40 eight wheel cars.

ATTICA AND BUFFALO.

The capital stock of this company on the 1st of January last, was $700,000, all of which is now paid in.

Cost of construction, including lands..	526,782 58
" real estate and right of way...	177,732 69
" buildings.....	23,871 94
" cars and engines.....	92,926 46
Total cost of constructions.....	821,313 67
Paid in 1848 for iron in relaying read..	279,592 35
" for lands and buildings.....	36,606 16
" for cars and engines.....	17,582 03
Total amount.....	333,770 54
Received from passengers.....	119,446 47
" " freight.....	25,965 57
" " mails	4,638 00
" " old iron.....	809 70
Total income.....	150,859 74

Number of through passengers, 127,004; way do., 19,231. Number of miles run by passenger cars, 59,836, and by freight cars, 18,758.

Indebtedness for money borrowed, and interest	37,766 43
" " real estate.....	7,843 75
" " spikes.....	2,288 87
Total indebtedness.....	47,899 05
Due company for old iron... 14,850 00	
" " cars... 1,379 82	
Total.....	16,229 82

The expenditures for 1848 were as follows

Paid for repairs, saloons, &c	34,752 02
" other expenses, not for constructions	31,347 29
" construction before stated	333,770 55
" dividend of five per cent. on $350,000, Feb. 1	17,500 00
" " " " Aug. 1.	17,500 00
Total	434,869 68

BUFFALO AND NIAGARA FALLS.

Capital stock	$200,000 00
Amount actually paid in	199,958 38
Paid for land for depots, &c	9,250 00
" construction of road	185,196 63
" buildings	6,550 00
" engines	26,000 00
" cars	23,400 00
Indebtedness for bonds issued	16,670 00
Rec'd from passengers, freight, &c	60,014 00
Paid for repairs and salaries	24,525 55
" dividends 1st July and Jan.	15,930 46

Number of engine houses, 2; shops, 1; engines, 4; passenger cars, 11; 4 eight wheel and 7 four wheel; 4 baggage and lumber cars; men employed, 32; miles run by cars, 25,124.

AMERICAN RAILROAD JOURNAL.

Saturday, February 17, 1849.

Railway Progress.

Continued from page 90.

NEW JERSEY.

Railroads in operation January 1, 1848.

Camden and Amboy	61 miles.
New Jersey—Jersey City to N. Brunswick	32
New Brunswick and Trenton	29
Bordentown and Trenton	6½
Morris and Essex—Newark to Morristown	23
Patterson and Hudson River	16½
Elizabethtown and Somerville	26
Camden and Woodbury	9
	202½

Opened during 1848.

Patterson and Ramapo	15 miles.
Morris and Essex—Morristown to Dover.	12½
Somerville and Easton—Somerville to Whitehouse	9
	36½

Roads in Progress.

none.

Total ..... 239½ miles

PENNSYLVANIA.

In Operation Jan. 1, 1848.

Philadelphia & Trenton	28 miles.
Philadelphia, Wilmington and Baltimore, (97 in all)	19
Philadelphia and Columbia	82
Philadelphia City and Southwark	6
Philadelphia, Germantown & Norristown	17
Germantown Branch	4
Philadelphia, Reading and Pottsville	93
Branch from Columbia Railway to West Chester	10
Pennsylvania Railroad, from Columbia Railroad to the Delaware River	2
Harrisburg and Lancaster	37
Cumberland Valley, from Harrisburg to Chambersburg	52
Franklin, Chambersburg to Hagerstown, (22 in all)	16
Wrightsville, York, and Gettysburg	12
Baltimore & Susquehanna, (57 in all)	21
Blossburg and Corning, (40 in all)	26
Alleghany Portage	36
Whitesbaven and Wilkesbarre	20
Mauch Chunk and Room Run	36
Beaver Meadow	26
Hazleton and Leheigh	10
Buck Mountain	4
Summit	2
Little Schuylkill	23
Mine Hill and Schuylkill Haven	25
Mount Carbon	7
Mount Carbon and Port Carbon	2½
Schuylkill Valley	14
Mill Creek	6
Lykens Valley	16
Shamokin, part of Danville & Pottsville.	22
Swatara	4
Williamsport and Elmira, finished only to Ralston	26
Carbondale and Honesdale,	16
Total	720½ miles.

Opened during 1848.

None.

Roads in Progress.

Central railroad—Eastern division—Harrisburg to Hollidaysburg.

" Western Division—Johnstown to Pittsburg.

Little Schuylkill and Susquehanna.

Tamanend to Catawissa, graded	36 miles.
Branch to Beaver Meadow	12

DELAWARE.

Roads in Operation Jan. 1, 1848.

Philadelphia, Wilmington, & Baltimore.	23 miles.
New Castle and Frenchtown	17
Total	40 miles.

MARYLAND.

Roads in Operation Jan. 1, 1848.

Philadelphia, Wilmington & Baltimore.	55 miles.
Baltimore and Ohio, (178 in all, 88 miles in Virginia	90
Frederick Branch	3
Baltimore and Washington Branch, (6 miles in District of Columbia)	31
Baltimore and Susquehanna	36
Washington Branch	10
Franklin (22 in all)	6
Aunapolis and Elkridge	21
	252 miles.

Opened during 1848.

None.

In Progress.

Baltimore and Ohio.

VIRGINIA.

Roads in Operation Jan. 1, 1848.

Baltimore and Ohio (178 in all)	88 miles.
Wincheste rand Potomae	76
Richmond, Frederickburg and Potomae.	76
Richmond and Petersburgh	22
Petersburgh (63 in all)	52
Seabord and Roanoke	49
Louisa Railroad (Dundrumville to Taylorville	50
Greensville and Roanoke	12
Chesterfield (Richmond to Coal Mines).	13
City Point (Petersburgh to James River).	12
	406 miles.

NORTH CAROLINA.

In Operation Jan. 1, 1848.

Wilmington and Weldon	150 miles.
Hickford and Gaston, (21 in all)	9
Gaston & Raleigh	96
	255 miles.

SOUTH CAROLINA.

In Operation January 1, 1848.

South Carolina (Charleston to Hamburg).	136 miles.
Columbia Branch	68
	204 miles.

GEORGIA.

In Operation January 1, 1848.

Georgia (Augusta to Atlanta)	171 miles.
Athens Branch	39
Western & Atlantic (Atlanta to Dalton	100
Central (Savannah to Macon)	191
Western to Macon (Atlanta to Macon)	101
	602 miles.

Opened during 1848.

None.

Total ..... 602 miles.

Roads in Progress.

South Western (Macon to Fort Gaines).

Western and Atlantic (Dalton to Chattanooga.

FLORIDA.

In operation January 1, 1848.

Tallahassee and Port Leon	26 miles.

ALABAMA.

In Operation Jan. 1, 1848.

Montgomery and West Point	48 miles.
Tuscumbia and Decatur	44
	92 miles.

Opened during 1848.

Montgomery and West Point	19
Total	111 miles.

MISSISSIPPI.

In Operation Jan. 1, 1848.

Vicksburg and Clinton	46 miles.
Mississippi (Natches to Malcom)	30
Jackson to Brandon	13
West Faliciana (24 in all)	6
Total	95 miles.

LOUISIANA.

In Operation Jan. 1, 1848.

Ponchartian	4½ miles
Port Hudson, Jackson & Clinton	28
West Feliciana (Bayou Sara to Woodville)	18
Total	50½ miles

KENTUCKY.

In Operation Jan. 1, 1848.

Lexington and Ohio (Lexington to Frankfort)	28 miles.

Opened during 1848,

None.

Roads in Progress.

Louisville and Frankfort (65 miles).

Louisville and Portland (3½).

ILLINOIS.

In Operation Jan. 1, 1848.

Sangamon and Morgan (Springfield to Meredocia)	53 miles.

Opened during 1848.

None.

Total	53 miles.

Roads in Progress.

Chicago to Galena.

INDIANA.

In Operation Jan. 1, 1848.

Madison and Indianapolis	86 miles.

Opened during 1848.

None.

Total ..... 86 miles

OHIO.

In Operation Jan. 1, 1848.

Little Miami (Cincinnati to Springfield..	84 miles.
Mansfield to Sandusky.....	56
Mad River and Lake Erie.....	102
Erie and Kalanazoo (Toledo to Adrian, 33 in all).....	20
	262 miles.

Opened during 1848.

Mad River and Lake Erie.....	32
Total.....	294 miles.

In Progress.

MICHIGAN.

In Operation Jan. 1, 1848.

Michigan Central (Detroit to Kalamazoo)	146 miles.
Erie & Kalamazoo (Toledo to Adrian)..	13
Detroit and Pontiac.....	25
Michigan Southern (Monroe to Hillsdale	70
Tecumsah Branch.....	10
	264 miles.

Opened during 1848.

None.

Total..... 264 miles.

Roads in Progress.

Central.

There should be added to the Massachusett Roads the *Brookline Branch* of 1¼ miles, belonging to Boston and Worcester Railroad, and the *Watertown Branch* of 3 miles, belonging to the Fitchburgh Railroad, making the total of Massachusetts Roads, Jan 1, 1848, 704¼ miles.

The *Corning and Blossburg Railroad*, 40 miles in length, has 26 miles in Pennsylvania and 14 miles in New York, only making the aggregate of New York roads, Jan. 1, 1848, 744 miles.

The aggregate of all the railways in each of the United States is as follows, viz:—

	In operation Jan. 1, '48. Miles.	Opened during 1848. Miles.	Total, Jan. 1, '48 Miles.
Maine.....	76¼	34¼	111¼
New Hampshire..	167¼	96¼	263¼
Vermont.....	....	91¼	91¼
Massachusetts....	704¼	172	876¼
Rhode Island.....	64¼	....	64¼
Connecticut.....	194	76¼	270¼
In New England..	1207¼	470¼	1678
New York.....	744	275	1019
New Jersey.....	202¼	35¼	239¼
Pennsylvania.....	720¼	....	720¼
Deleware.....	40	....	40
Maryland.....	253	....	252
Virginia.....	406	....	406
N. Carolina.....	255	....	255
S. Carolina.....	204	....	204
Georgia.....	602	....	602
Florida.....	26	....	26
Alabama	92	19	111
Mississippi	95	....	95
Louisianna.....	50¼	....	50¼
Kentucky.....	28	....	28
Tennessee.....	....	....	....
Illinois.....	53	....	53
Indiana.....	86	....	86
Ohio.....	262	32	294
Michigan.....	264	....	264
Total.....	5589	832¼	6421¼

This table shows a most gratifying result. We have been at great labor in preparing it, knowing the fact that there has been a strong desire to ascertain with tolerable accuracy the number of miles of railway in operation within the limits of each state, with an aggregate for the whole Union. The foregoing schedule may be regarded as nearly correct. It is preparatory to a full Share List we have in progress. To the capitalist and the business man generally, the list of roads in operation is of more interest than a list of roads in progress of construction; while to the numerous body of engineer contractors and builders of machinery, the latter class is of far more importance.

We purpose, therefore, to furnish full details as to roads in operation, and roads in progress. Our list of roads in progress may be quite incomplete. We have given the more prominent ones, at all events, and intend to record the doings of new companies as they transpire. We have, in the above table, spoken only of roads known to be in actual process of construction. Our estimate of new openings in 1849 we reserve for our next number.

Railway Progress in Great Britain and Ireland.

At the end of the year 1842, 1,530 miles of railway were in operation in the United Kingdom, principally in England alone. During the year 1843, 60 miles of new road were opened; in 1844, 190 miles; in 1845, 270 miles; in 1846, 600 miles; in 1847, 800 miles; and in 1848, 970 miles; making, at the end of the year 1848, 4,420 miles of railway in actual operation.

There had been expended, in the construction of these roads, to July, 1848, the sum of £131,000,000, or $628,000,000, or at the rate of $142,000 per mile. The English railways are thoroughly built, and generally with two or more sets of rails, or tracks. The traffic on these raods in 1848 amounted to £10,092,000, or more than $47,000,000.

In 1842, Parliament sanctioned the building of 67 miles of new railway; 91 miles in 1843; 997 miles in 1844; 2883 miles in 1845; 4,790 miles in 1846; 1663 miles in 1847; and about 300 miles in 1848, which, including these previously chartered, authorised the construction of 13,600 miles within the limits of the United Kingdom. The area of Great Britain and Ireland, including the Orkneys and Shetland Isles, is 120,290 square miles, about equal to the territory of New England and New York, united, which embrace an area of 112,526 square miles.

An act passed by the British Parliament, in 1847, authorissd the postponement of certain railway projects, till the pressure of the money market should be somewhat lessened. In March, 1848, 104 companies, embracing lines to the amount of 3,650 miles, had availed themselves of this act, generally for two years. The estimated cost of these suspended works is £59,000,000, or at the rate of £17,500, or $84,000 per mile.

Railroads in Illinois.

We have on our table the able Report of the Senate Committee on Public Lands, recommending the grant of land to the State of Illinois to aid in the completion of her unfinished railways. These roads were commenced some ten years since, and upwards of eight millions of dollars expended thereon. They are now of no value to the State unless completed. They embrace the following routes, viz: the *Central Railroad* from Cairo to Galena, via Peru, the southern terminus of the Illinois and Michigan canal.—The *Northern Cross Railroad*, from Quincy, via Springfield, to the Indiana line on the Wabash river. A railroad from *Alton to Mount Carmel*, in the direction of Louisville, with several branch roads connecting therewith. The whole length of these roads, as surveyed by the State, is over 1300 miles. The great value and importance of these roads are: that they all unite with the *Central Railroad*, which has its southern terminus at *Cairo*. From this point we believe the navigation is always open to New Orleans, for boats of the largest class. The report before us proceeds to say:

"The State of Illinois, the committee are informed, by documentary and other evidence before them, commenced her system of internal improvements in 1836 '37, with a view not only of benefitting her own citizens, but to encourage emigration into the State, which, by the construction of railroads and canals, would cause their lands to be purchased of the United States and cultivated, for with the railroad improvements the products of the soil could then be sent to market at a remunerating price. The state, having incurred a debt of more than twelve millions of dollars on account of these improvements, was compelled, in 1841, to suspend all further advancements for them, not having the credit to raise the necessary means for works so extensive as those she had projected.

"The committee believe that the old States of the confederacy are quite as much interested in the construction of these roads as the state through which they are projected, for the immense productions of that state, now daily on the increase, will seek a market, at some seasons of the year, over their works of a similar kind, and articles of consumption, to supply them, be transported to the west by the same means; the price of which, to the consumer being reduced by the reduced rates of transportation, and the price of their productions enhanced by the same cause. Although the old states do not directly participate in the grant itself, yet they have a large proportion of the advantages to flow from it by the increased trade with the west, an object of so much importance to them as to have induced the expenditure already of millions of dollars to secure.

"To illustrate more clearly the importance of these western roads through the public lands to every section of our Union, the committee have prepared a skeleton map, appended to this report, showing the railroads completed and in progress, in the United States, and those proposed through the public lands, and their connection with the harbors on the lakes and seaboard: and as distance is no longer measured by miles, but by minutes, it will be seen, on reference to the map, that, by the shortest railroad routes, at the average speed of 25 miles per hour, assuming the mouth of the Ohio as the 'geographical centre of the United States,' that distance is almost annihilated. From Cairo to

Mobile.....	19 hours.
Pensacola	22
New Orleans.....	26
Nashville.....	6
Charleston.....	28
Louisville	12
Cincinnati.....	16
St. Louis.....	8
Alton.....	9
Springfield.....	10
Peru.....	12
Chicago.....	16
Galena.....	22
Detroit.....	24
Buffalo.....	33
Indianapolis.....	12
Columbus.....	19
Wheeling.....	24
Pittsburg.....	26
Baltimore.....	36
Philadelphia.....	38
New York.....	42
Boston.....	51
Portland.....	55
San Francisco, via St. Louis.....	70

And in the same proportion for intermediate points.

Now, by the most speedy steamboat routes, the trip to New Orleans, from the mouth of the Ohio, requires 4½ days; to Pittsburg 6 days, and to Galena 3½ days. As 'time is money,' here is an immense gain, which should not escape attention, and should have its proper weight, not only in regard to the vast business operations of our people, but in re-

gard to the inducements presented by such works through the public lands, to their sale and settlement. Besides, the great facilities afforded by such works, for frequent and rapid intercourse between the most distant and divided parts of the union, will have a certain effect to destroy much of the prejudice which now exists among them, and tend very greatly in the opinion of the committee, to preserve the harmony and union of the States.

"To show the extent of the inland navigation in the valley of the Mississippi, the committee submit the following extract from 'Peck's Gazette of Illinois and Missouri,' a work of decided merit, and prepared by one of the most intelligent citizens of the west: 'The Mississippi and Ohio, with their tributary rivers, form an inland navigation exceeding 20,000 miles, for various class of boats, during two-thirds of the year to the point of junction at Cairo; from thence to New Orleans, a distance of 1,000 miles, the river is navigable the whole year for the largest class of boats.'

"With the rich back country bordering on these rivers, railroads and canals, how vast must be the exports and imports of these western states at some future day, and what immense revenue they must pour into the national treasury."

The *Nashville and Charleston*, and the *Ohio and Mobile Railroad* companies, foreseeing that the immense productions of the northwest must at some future time concentrate at some point near the mouth of the Ohio, are now surveying routes to form a continuous line of connection with the railroads of Illinois at *Cairo*, for the purpose of opening a direct railroad communication between the southern Atlantic cities and the Gulf of Mexico, and the south-western States. Such a connection would be of vast importance to the whole country, and we hope to be able soon to report the favorable action of Congress upon the above bill.

RAILROAD IRON.

1000 tons T Rails, weighing about 60lbs. to the yard, of the latest and most approved pattern, for sale by BOORMAN, JOHNSTON, & CO.,
119 Greenwich st., New York.
Jan. 20, 1849. 6w

IRON BRIDGES, BRIDGE & ROOF BOLTS, etc.—STARKS & PRUYN, of Albany, N.York, having at great expense established a Manufactory with every facility of Machinery, for manufacturing Iron Bridges, Bridge and Roof Bolts, together with all kinds of the larger sizes of Screw Bolts, Iron Railings, Steam Boilers, and every description of wrought iron work, are prepared to furnish to order, on the shortest notice, any of the above branches, of the very best of American Refined Iron, and at the lowest rates.

During the past year S. & P. have furnished several Iron Bridges for the Erie Canal, Albany Basin, etc., and a large amount of Railroad Bridge Bolts, all of which have given the most perfect satisfaction.

They are permitted to refer to the following gentlemen:

Charles Cook, Nelson J. Beach, Jacob Hinds,	Canal Commissioners of the State of New York.
Willard Smith Esq.,	Engineer of the Bridges for the Albany Basin.
Messrs. Stone & Harris	Railroad Bridge Builders, Springfield, Mass.
Mr. Wm. Howe,	
Mr. S. Whipple,	Engineer & Bridge Builder, Utica, N. Y.

January 1, 1849. 1y*

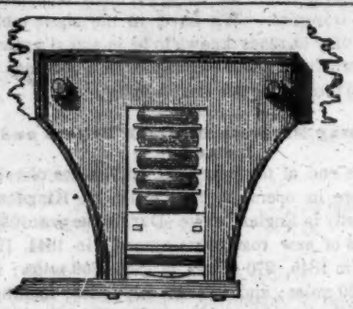
SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars. The Subscriber is engagep in manufacturing Spring Steel from 1¼ to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address
JOAN F. WINSLOW, *Agent*,
1y Albany Iron and Nail Works,

NEW PATENT CAR WHEELS.

THE SUBSCRIBERS ARE NOW MANUfacturing Metallic Plate Wheels of their invention, which are pronounced by those that have used them, a superior article, and the demand for them has met the most sanguine expectations of the inventors. Being made of a superior quality of Charcoal Iron, they are warranted equal to any manufacture.

We would refer Railroad Companies and others to the following roads that have them in use. Hartford and New Haven, Connecticut River Railroad, Housatonic, Harlem, Farmington, and Stonington.
SIZER & CO.
January 29, 1848. tf Springfield, Mass.

RAILROAD IRON AND LOCOMOTIVE Tyres imported to order and constantly on hand by
A. & G. RALSTON
Mar. 20tf 4 South Front St., Philadelphia.



FULLER'S PATENT INDIA RUBBER SPRINGS.—*There can now be no ground of opposition whatever to these Springs.* The Commissioner of Patents has not only rejected the application for a Patent for a similar Spring, but *a Patent has just been granted for an entirely new species of India Rubber*, the quality of which can be surpassed by no other kind, as the experiments which have lately been publicly made, have fully proved. No extremes of heat or cold can effect it, nor will any amount of pressure permanently alter its shape.—This Patent refutes the statement of the "New England Car Company" as to their sole right to use India Rubber.

The Spring (composed by alternate layers of India Rubber Discs and Metal Plates) is superior to any other form of Spring, for several reasons: It is the lightest—the most simple, and most durable—there being less friction in this than in any other kind; it can be regulated to any extent desired. A less quantity of rubber is required in this form to make a good spring than in any other because each disc or ring of India rubber is firmly supported by metal plates, and forms in itself a distinct spring—nor is any spiral spring required. The Patentee is consequently able to supply efficient springs at a less cost than any other parties can do. Purchasers are guaranteed in the use of these springs.

This spring has been used nearly four years with complete success. It is applicable equally to Passenger and Freight Cars, to Locomotives and Tenders. Bumpers and Draw Springs are always kept on hand, which merely require screwing to a car. It has lately been applied also to several kinds of *Machines*.

Action will be brought against all persons infringing upon these patents.

The subscriber will show Models and Drawings of the various modes of application to Cars, Machines, Omnibusses, etc.
G. M. KNEVITT, Agent,
Principal office, No. 78 Broad St., New York.
Branch office, Messrs. James Lee & Co's, No. 18 India Wharf, Boston.

Mr. Hale, the President of the Boston and Worcester railroad, wrote an article concerning Fuller's springs. The "New England Car Company" take the liberty of publishing that article, omitting, however, an important part; it is therefore given in full now, and the portion omitted by the New England car company is printed in itaics, that the public may judge of the manner in which this "company" pervert Mr Hale's meaning.

[*From the Boston Advertiser of the 7th June.*]

INDIA RUBBER SPRINGS FOR RAILROAD CARS.

"Of the numerous uses to which the wonderful elasticity and durability of India rubber, renders this material applicable, we are hardly aware of one, in which it has been more successful than in forming springs for railroad cars. We have had occasion to observe, for some months past, its application to this use, on one of the passenger cars on the Newton special train of the Boston and Worcester railroad. It is there used not only for the springs on which the car rests, but for the springs attached to the draw bar, at each end of the car, to prevent any jar on the sudden commencement, or interruption of the motion of the car. For both these purposes it appears to be admirably adapted, and we do not learn that during the period in which it has been used, any defect in it has been discovered. It renders the movements of the car extremely easy, and protects it more effectually, we think, than any other spring which we have seen in use, from every harsh or unpleasant motion, either vertical or horizontal. It is also simple in its form and application, extremely light, and little liable to get out of repair. During the period of some months in which we have seen the springs in operation, there is no apparent wear or diminution of its efficiency. *Each spring is composed of several circular layers or rings of India rubber, a thin metallic plate of the same size being interposed between each of the layers. From the simplicity of its form, it cannot be expensive, and it admits of being made more or less elastic atmost at pleasure. The invention, we understand, was first patented in England, where it has been introduced into general use on several of the principal railroads, and we have no doubt it will come into very extensive use in this country. The patent for this invention, we understand, has been granted to Mr. W. C. Fuller, in England and France, and also in this country. Mr. Knevitt, of New York, is the agent for the patentee in the United States, and he has established a branch office for the supply of the article in this city, as may be learned from an advertisement in another column of this paper.*"

NICOLL'S PATENT SAFETY SWITCH for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee
G. A. NICOLLS,
ja45 *Reading, Pa.*

WILLIAM JESSOP & SONS,

CELEBRATED CAST-STEEL.

The subscribers have on hand, and are constantly receiving, from their manufactory,
PARK WORKS, SHEFFIELD,
Double Refined Cast Steel—Square, flat & octagon.
Best warranted Cast Steel—Square, flat & octagon.
Best Double and Single Shear Steel—Warranted.
Machinery Steel—Round.
Best and 2d gy. Sheet Steel—for Saws and other purposes.
German Steel—flat and sqr., "W. I. & S." "Eagle" and "Goat" Stamps.
Genuine "Sykes," L Blister Steel.
Best English Blister Steel, etc., etc., etc.

All of which are offered for sale on the most favorable terms, by WM. JESSOP & SONS,
91 John Street, New York.
Also by their Agents—
Curtus & Hand, 47 Commerce St., Philadelphia.
Alex'r Fullerton, & Co., 119 Milk St., Boston.
Stickney & Beatty, South Charles St., Baltimore.
May 6, 1848.

JAMES LAURIE, *Civil Engineer.*

No. 23 Railroad Exchange, Boston, Mass.

Railroad Routes Explored and Surveyed. Estimates, Plans and Specifications furnished for Dams, Bridges, Wharves, and all Engineering Structures

October 14, 1848. 6m*

MASONS AND STONECUTTERS WANTED—AT THE U. S. NAVY YARD, NEAR PENSACOLA.—Twenty good Stonecutters can find immediate employment at dressing granite by the superficial foot. The *beds* and *builds* of the stone will alone be dressed—the face being left rough. For this work the high price of 25 cents per superficial foot will be allowed on the stone now in the yard, and the tools sharpened.

Those who are Masons as well as Stonecutters, will be preferred: and, more especially, those who are disposed to work, when necessary, in Diving Bells. The works in progress are very extensive, and will, probably, afford constant employment for some years.

To good workmen, of the above description, when employed by the day, the wages will be $2.50, on the ten hour system; to which, an addition at the rate of one dollar per day will be made for such time as they may be employed in the Diving Bells. Or at the rate of $3.50 per day.

The Diving Bells, and Machinery, are constructed on the most approved plans, and will be abundantly supplied with air and light, and the water kept low in the Bells, so that no inconvenience will be felt by the workmen, the depth being only from 25 to 30 feet.

Two good Machinists can also find employment in the Navy Yard. Apply in person, to

JAMES HERRON,
Civil Engineer, Navy Yard.

Jan. 1. 10t

RAILROAD IRON.

THE TRENTON IRON COMPANY ARE now turning out one thousand tons of rails per month, at their works at Trenton, N. J. They are prepared to enter into contract to furnish rails of any pattern, and of the very best quality, made exclusively from the famous Andover iron. The position of the works, on the Delaware river, the Delaware and Raritan canal, and the Camden and Amboy railroad, enables them to ship rails at all seasons of the year. Apply to

COOPER & HEWITT, Agents,
17 Burling Slip, New York.

October 30th, 1848.

MANUFACTURE OF PATENT WIRE Rope and Cables for Inclined Planes, Standing Ship Rigging, Mines, Cranes, Tillers etc., by JOHN A. ROEBLING, *Civil Engineer*,
Pittsburgh, Pa.

These Ropes are in successful operation on the planes of the Portage Railroad in Pennsylvania, on the Public Slips, on Ferries and in Mines. The first rope put upon Plane No. 3, Portage Railrord, has now run 4 seasons, and is still in good condition. 92v1 1y

NORWICH CAR FACTORY,

NORWICH, CONNECTICUT.

AT the head of navigation on the River *Thames*, and on the line of the *Norwich and Worcester Railroad*, established for the manufactory of

RAILROAD CARS,

OF EVERY DESCRIPTION, VIZ:

PASSENGER, FREIGHT AND HAND CARS,

ALSO, VARIOUS KINDS OF

ENGINE TENDERS AND SNOW PLOUGHS.

TRUCKS, WHEELS & AXLES

Furnished and fitted at short notice.

Orders executed with promptness and despatch.

☞ Any communication addressed to

JAMES D. MOWRY,
General Agent,
Norwich, Conn.,

Will meet with immediate attention. 1y8

RIDER'S PATENT IRON BRIDGE.

The Rider Iron Bridge having now been fully tested on the Harlem Railroad, by constant use for about eighteen months, and found to answer the full expectations of its most sanguine friends, is now offered to the public with the utmost confidence as to its great utility over any other Bridge now known.

The plan of this Bridge is to use the iron so as to obtain its greatest longitudinal strength, and at the same time is so arranged as to secure the combined principles of the *Arch*, *Suspension* and *Triangle*, all under such controlling power as causes each to act in the most perfect and secure manner, and at the same time impart its greatest strength to the whole work.

The Rider Iron Bridge Company are prepared to furnish large quantities of Iron Bridging for Rail Road or other purposes, made under the above Patent, at short notice, and at prices far *more economical* than the best wood structure, and on *certain conditions*, the first cost may be made the same as wood.

Models, and pamphlets giving full descriptions of the Rider Bridge, with certificates based on actual trial from undoubted sources, will be found at the office of the Company, 74 BROADWAY, *up stairs*, or of W. Rider & Brothers, 58 *Liberty Street*, where terms of contract will be made known, and where orders are solicited.

M. M. WHITE,
November 25, 1848. Agent for the Company.

LAP—WELDED

WROUGHT IRON TUBES

FOR

TUBULAR BOILERS,

FROM 1 1-2 TO 8 INCHES DIAMETER.

These Tubes are of the same quality and manufacture as those so extensively used in England, Scotland, France and Germany, for Locomotive, Marine and other Steam Engine Boilers.

THOMAS PROSSER,
Patentee.
28 Platt street, New York.

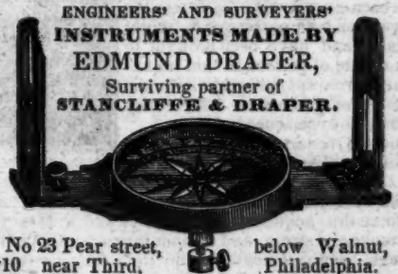
ENGINEERS' AND SURVEYERS'

INSTRUMENTS MADE BY

EDMUND DRAPER,

Surviving partner of

STANCLIFFE & DRAPER.



No 23 Pear street, near Third, below Walnut, Philadelphia.

1y10

RAILROAD SCALES.—THE ATTENTION of Railroad Companies is particularly requested to Ellicotts' Scales, made for weighing loaded cars in trains, or singly, they have been the inventors, and the first to make platform scales in the United States; supposing that an experience of 20 years has given a knowledge and superior advantage in the business.

The levers of our scales are made of wrought iron, all the bearers and fulcrums are made of the best cast steel, laid on blocks of granite, extending across the pit, the upper part of the scale only being made of wood. E. Ellicott has made the largest Railroad Scale in the world, its extreme length was one hundred and twenty feet, capable of weighing ten loaded cars at a single draft. It was put on the Mine Hill and Schuylkill Haven Railroad.

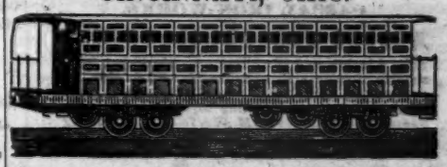
We are prepared to make scales of any size to weigh from five pounds to two hundred tons.

ELLICOTT & ABBOTT.

Factory, 9th street, near Coates, cor. Melon st.
Office, No. 3 North 5th street,
1y25 Philadelphia, Pa.

CAR MANUFACTORY,

CINCINNATI, OHIO.



KECK & DAVENPORT WOULD RESPECTFULLY call the attention of Railroad Companies in the West and South to their establishment at Cincinnati. Their facilities for manufacturing are extensive, and the means of transportation to different points speedy and economical. They are prepared to execute to order, on short notice, Eight-Wheeled Passenger Cars of the most superior description, Open and Covered Freight Cars, Four or Eight-Wheel Crank and Lever Hand Cars, Trucks, Wheels and Axles, and Railroad Work generally.

Cincinnati, Ohio, October 2, 1848. 41tf

RAILROAD IRON.

THE MOUNT SAVAGE IRON WORKS, Allegheny County, Maryland, having recently passed into the hands of new proprietors, are now prepared, with increased facilities, to execute orders for any of the various patterns of Railroad Iron.—Communications addressed to either of the subscribers will have prompt attention.

J. F. WINSLOW, President
Mount Savage Iron Co., Troy, N. Y.
ERASTUS CORNING, Albany.
WARREN DELANO, Jr., N. Y.
JOHN M. FORBES, Boston.
ENOCH PRATT, Baltimore, Md.

November 6, 1848.

THE NEWCASTLE MANUFACTURING Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention. ANDREW C. GRAY,

a45 President of the Newcastle Manuf. Co.

DIRECT ACTION ENGINES
FOR STEAMBOATS.
THE PATENT DOUBLE CYLINDERS,
AND ALSO
THE ANNULAR RING PISTON ENGINES,
of Messrs. Mauldslay, Sons & Field, of London, may be built in the United States, under license, which can be obtained of their agent,
THOMAS PROSSER, C. E.,
28 Platt street, New York.
May 6, 1848.

PATENT HAMMERED RAILROAD, SHIP and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, *Agent.*

Albany Iron and Nail Works, Troy, N. Y.

The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston. ja45

TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.

PASCAL IRON WORKS.

WELDED WROUGHT IRON TUBES

From 4 inches to ¼ in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, Tees, Ells, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FLUES.

Manufactured and for sale by
MORRIS, TASKER & MORRIS.
Warehouse S. E. Corner of Third & Walnut Streets,
PHILADELPHIA.

FAIRBANKS' RAILROAD SCALES.

THE Subscribers are prepared to construct at short notice, *Railroad* and *Depot Scales*, of any desired length and capacity. Their long experience as manufacturers—their improvements in the construction of the various modifications, having reference to strength, durability, retention of adjustment, accurracy of weight and despatch in weighing—and the long and severe tests to which their scales have been subjected—combine to ensure for these scales the universal confidence of the public.

No other scales are so extensively used upon Railroads, either in the United States or Great Britain; and the manufacturers refer with confidence to the following in the United States.

Eastern Railroad,	Boston and Maine R. R.,
Providence Railroad,	Providence & Wor. R.R.,
Western Railroad,	Concord R. R.,
Old Colony Railroad,	Fitchburg R. R.,
Schenectady Railroad,	Syracuse and Utica R. R.,
Baltimore & Ohio Road,	Baltimore & Susq. R. R.,
Phila. & Reading Road.	Schuylkill Valley R. R.,
Central (Ga.) Railroad.	Macon and Western R.R.,
New York and Erie Railroad;	

and other principal Railroads in the Western, Middle and Southern States.

E. & F. FAIRBANKS & CO.
St. Johnsbury, Vt.

Agents { FAIRBANKS & Co., 81 Water st. N. York.
A. B. NORRIS, 196 Market st., Philad.

April 22, 1848. 1y*17

RAILROAD IRON—2500 TONS HEAVY H Rail, now landing, and expected shortly to arrive, for sale on most favorable terms by
DAVIS BROOKS & CO.
July 19th, tf 68 Broad street, New York.

ENGINE AND CAR WORKS.

DAVENPORT & BRIDGES

HAVING ASSOCIATED WITH THEM

MR. LEWIS KIRK, OF READING, PA.,

And recently enlarged their Establishment, (making it now the most extensive in the United States,) they are prepared to manufacture to order Locomotive Engines and Cars of every description. Stationary Engines, Steam Hammers, Boilers, and all kinds of Railroad Machinery. Also, Castings, and Forge Irons of all kinds—including Chilled Wheels, Frogs, Chairs, Switches, Car Axles, and Locomotive Cranks, Connecting Rods, Steel Springs, Bolts, etc., etc. Orders from all parts of the country solicited for Engines or Cars, or any part or parts of the same. All orders will be furnished at short notice, and on as good terms as any manufactury in the country. Coaches pass our works every fifteen minutes during the day from Brattle street, Boston.

DAVENPORT, BRIDGES & KIRK.

Cambridgeport, Mass., February 16th, 1849.

THE SUBSCRIBERS ARE PREPARED TO execute orders at their Phœnix Works for Railroad Iron of any required pattern, equal in quality and finish to the best imported.

REEVES, BUCK & CO.,
Philadelphia.
ROBERT NICHOLS, Agent,
26tf No. 79 Water St., New York.

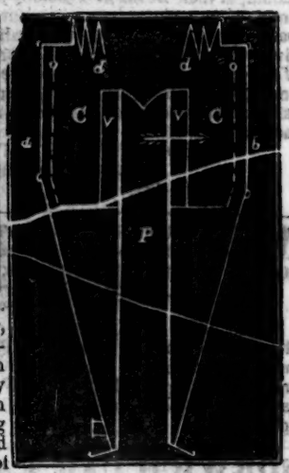
RAILROAD IRON, PIG IRON, ETC.

600 Tons of T Rail 60 lbs. per yard.
25 Tons of 2¼ by ½ Flat Bars.
25 Tons of 2¼ by 9-16 Flat Bars.
100 Tons No. 1 Gartshrorie.
100 Tons Welsh Forge Pigs.

For Sale by A. & G. RALSTON & CO.
No. 4 So. Front St., *Philadelphia*

FRENCH AND BAIRD'S PATENT SPARK ARRESTER.

TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved Spark-Arrester recently patented by the undersigned.



Our improved Spark Arresters have been extensively used during the last year on both passenger & freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits

R. L. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendant Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendant Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, care Messrs. Baldwin & Whitney, of this city, will be promptly executed.

FRENCH & BAIRD.

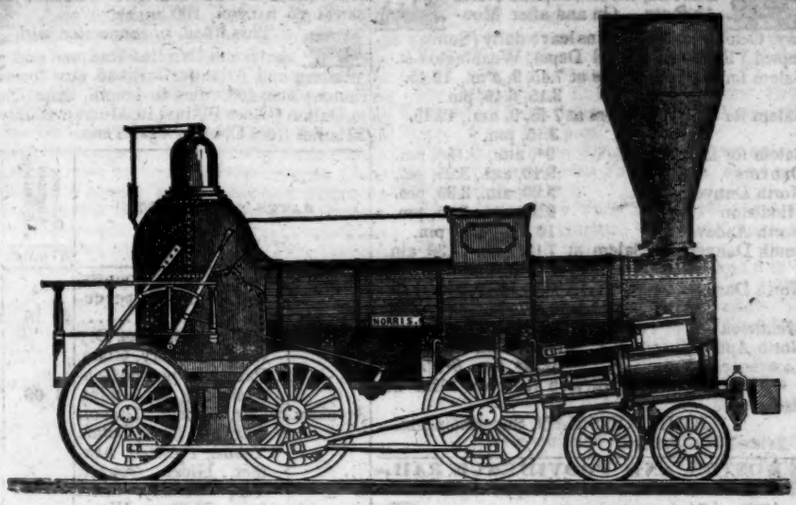
N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

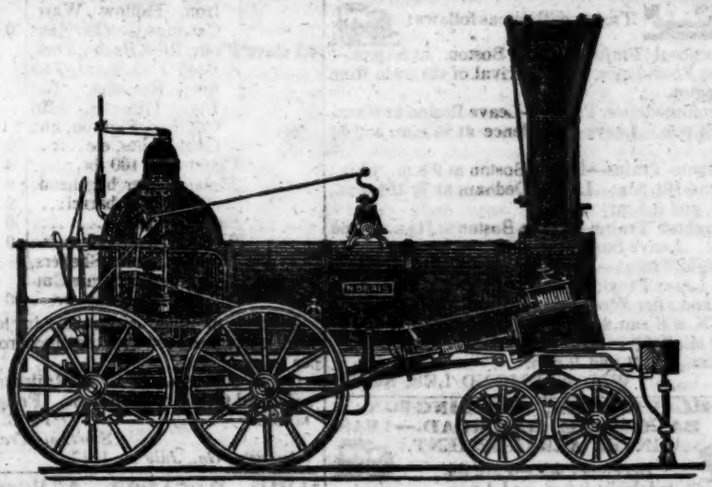
Philadelphia, Pa., April 6, 1844.

☞ The letters in the figures refer to the article given in the *Journal* of June, 1844. ja45

NORRIS' LOCOMOTIVE WORKS.

BUSHHILL, SCHUYLKILL SIXTH-ST., PHILADELPHIA,





THE UNDERSIGNED Manufacture to order Locomotive Steam Engines of any plan or size.

Their shops being enlarged, and their arrangements considerably extended to facilitate the speedy execution of work in this branch, they can offer to Railway Companies unusunl advantages for prompt delivery of Machinery of superior workmanship and finish.

Connected with the Locomotive business, they are also prepared to furnish, at short notice, Chilled Wheels for Cars of superior quality.

Wrought Iron Tyres made of any required size—the exact diameter of the Wheel Centre, being given, the Tires are made to fit on same without the necessity of turning out inside.

Iron and Brass castings, Axles, etc., fitted up complete with Trucks or otherwise.

NORRIS' BROTHERS.

MACHINE WORKS OF ROGERS, Ketchum & Grosvenor, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed beinglarge, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery

of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,
Paterson, N. J., or 60 Wall street, N. York.

T. & C. WASON, Manufacturers of every style of Freight and Baggage Cars.—Forty rods east of the depot, Springfield, Mass.

Running parts in sets complete, Wheels, Axles, or any part of cars furnished and fitted up at short notice and in the best manner.

N.B. Particular attention paid to the manufacture of the *most improved* Freight Cars. We refer to the New Haven, Hartford and Springfield; Connecticut River; Harlem; Housatonic, and Western, Mass., Railroads, where our cars are now in constant use.

Dec. 25, 1847.—1y.

RAILROAD IRON.

3000 TONS, ABOUT 60 LBS. PR lineal yard—deliverable early in the Spring, and of undoubted quality, can be contracted for at a low rate. For sale by

DAVIS, BROOKS & CO.,
68 Broad street.

New York, Sept. 16. 1848, 39tf

Also on hand—**1000** Tons best quality Rails.

CHILLED RAILROAD WHEELS.—THE undersigned are now prepared to manufacture their Improved Corrugated Car Wheels, or Wheels with any form of Spokes or Disks, by a new process which prevents all strain on the metal, such as is is produced in all other chilled wheels, by the manner of casting and cooling. By this new method of manufacture, the hubs of all kinds of wheels may be made whole—that is, without dividing them into sections—thus rendering the expense of banding unnecessary; and the wheels subjected to this process will be much stronger than those of the same size and weight, when made in the ordinary way.

A. WHITNEY & SON,
Willow St. below 13th,
Nov. 10, 1847. {tf.] Philadelphia, Penna.

TO LOCOMOTIVE AND MARINE ENgine Boiler Builders. Pascal Iron Works, Philadelphia. Welded Wrought Iron Flues, suitable for Locomotives, Marine and other Steam Engine Boilers, from 2 to 5 inches in diameter. Also, Pipes for Gas, Steam and other purposes; extra strong Tube for Hydraulic Presses; Hollow Pistons for Pumps of Steam Engines, etc. Manufactured and for sale by

MORRIS TASKER & MORRIS,
Warehouse S. E. corner 3d and Walnut Sts., Philadelphia 1t

TO RAILROAD COMPANIES AND MANufacturers of railroad Machinery. The subscribers have for sale Am. and English bar iron, of al. sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE,
a45 N. E. cor. 12th and Market sts., Philad., Pa.

LAWRENCE'S ROSENDALE HYDRAulic Cement. This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Flooms and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by JOHN W. LAWRENCE,
142 Front street, New York.

☞ Orders for the above will be received and promptly attended to at this office. 32 1y

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RAILROAD IRON.

THE Undersigned are prepared to Contract for the delivery of ENGLISH RAILROAD IRON, of favorite brands, during the Spring. They also receive orders for the importation of Pig, Bar, Sheet, etc., Iron.

THOMAS B. SANDS & Co.
22 South William-Street.
Feb. 3tf. New York.

DEAN, PACKARD & MILLS,

MANUFACTURERS OF ALL KINDS OF

RAILROAD CARS,

SUCH AS

PASSENGER, FREIGHT AND CRANK CARS,

— ALSO —

SNOW PLOUGHS AND ENGINE TENDERS

OF VARIOUS KINDS.

CAR WHEELS and AXLES fitted and furnished at short notice; also, STEEL SPRINGS of various kinds; and

SHAFTING FOR FACTORIES.

☞ *The above may be had at order at our Car Factory,*

REUEL DEAN,
ELIJAH PACKARD,
ISAAC MILLS,
} SPRINGFIELD, MASS.

1y48

MATTEWAN MACHINE WORKS.

THE MATTEWAN COMPANY HAVE added to their Machine Works, an extensive LOCOMOTIVE ENGINE department, and are prepared to execute orders for *Locomotive Engines* of every size and pattern—also, *Tenders*, *Wheels*, *Axles*, and other Railroad Machinery, to which they ask the attention of those who wish such articles, before they purchase elsewhere.

STATIONARY ENGINES, BOILERS, ETC., Of any required size or pattern, arranged for driving *Cotton*, *Woollen*, or *other* Mills, can be had on favorable terms, and at short notice.

COTTON AND WOOLLEN MACHINERY, Of every description, embodying all the modern improvements, second in quality to none in this or any other country, made to order.

MILL GEARING,

Of every description, may be had at short notice, as this company has probably the most extensive assortment of patterns in this line, in any section of the country, and are constantly adding to them.

TOOLS.

Turning Lathes, *Slabbing*, *Plaining*, *Cutting*, and *Drilling* Machines, of the most approved patterns, together with all other tools required in machine shops, may be had at the Mattewan Company's Shops, Fishkill Landing, or at

39 Pine Street, New York.

WM. B. LEONARD, *Agent.*

RAILROAD IRON.

THE NEW JERSEY IRON CO.'S WORKS, at Boonton, are now in full operation, and can execute orders for Railroad Bars of any required pattern, equal in quality to any made in this country. Apply to DUDLEY B. FULLER, Ag't

139 Greenwich Street.

New York, October 25, 1848. tf

EASTERN RAILROAD, WINTER ARRAGEment. On and after MONNDAY, Oct. 2, 1848. Trains will eave Eastern Railroad Depot, Eastern Avenue, Commercial street, Boston, daily, (Sundays excepted,)

For Lynn, 7, 9 11½, a.m. 12, 2½, 3½, 4½, 6, a.m.
Salem, 7, 9, 11½, a.m. 12, 2½, 3½, 4½, 6, p.m.
Manchester, 9, a.m. 3½, p.m.
Gloucester, 9, a.m. 3½, p.m.
Newburyport, 7, 11½, a.m. 2½, 4½, p.m.
Portsmouth, 7 a.m., 2½ 4½ p.m.
Portland, Me. 7, a.m., 2½, p.m.

And for Boston,

From Portland, 7½, a.m., 3, p.m.
Portsmouth, 7, 9½*, a.m. 5½*, p.m.
Newburyport, 7½, 10½*, a.m., 2, 6*, p.m.
Gloucester, 7½, a.m., 3½, p.m.
Manchester, 8, a.m., 3½, p.m.
Salem, 7½, 8½*, 9*, 10½, 11·40*, a.m., 2½, 3*, 4½*, 7*, p.m.
Lynn, 7½, 8½*, 9½*, 10½, 11·55*, a.m., 2½, 3½*, 4½*, 7½*, prm.

☞ On Monday, Wednesday, and Friday, a train will leave Boston for Lynn and Salem, at 7 o'clock, p.m.

On Tuesday, Thursday, and Saturday, a train will leave EAST BOSTON for Lynn and Salem, at 10½ o'clock, p.m.

*Or on their arrival from the East.

MARBLEHEAD BRANCH.

Trains leave
Marblehead for Salem, 7½, 8½, 10, 11·25, a.m. 2, 4½, 6½, p.m.
Salem for Marblehead, 7½, 9½, 10½, a.m., 12½, 3½, 5½, 6½, p.m.

GLOUCETER BRANCH.

Trains leave
Salem for Manchester at 9½, a.m., 4½, p.m.
Salem for Glouccester at 9½, a.m., 4½, p.m.
Trains leave
Gloucester for Salem at 7½, a.m., 3½, p.m.
Manchester for Salem at 8, a.m. 3½, p.m.

Freight Trin each way daily, Office 1 Merchants' Row, Boston.

Feb. 3 JOHN KINSMAN, Superintendent.

ESSEX RAILROAD.—SALEM TO LAWRENCE, through Danvers, New Mills, North Danvers, Middleton, and North Andover. On and after Monday, October 2, 1848, trains leave daily (Sunday excepted,) Eastern Railroad Depot, Washington-st.

Salem for South Danvers at 7.45, 9, a m., 12.45. 3.15, 6.45, pm.
Salem for North Danvers at 7.45, 9, am., 12.45. 3.15, pm.
Salem for Lawrence, 9*, am., 3.15*, pm.
Danvers " 9.10, am., 3.25, pm.
North Danvers " 9.20, am., 3.35, pm.
Middleton " 9.30, am., 3.45, pm.
North Andover " 10 am., 4.20, pm.
South Danvers for Salem at 7.15, 8.45, 11.30, am. 2, 5.45, pm.
North Danvers " 8.20, 11.10, am., 1.40. 5.40, pm.
Middleton " 11, am., 5.30, pm.
North Andover " 10.35, am., 5.05, pm.
Lawrence " 10.30*, am., 5*, pm.

* These trains will not stop at Frye's Mills nor Grove-st,

JOHN KINSMAN, Superintendent.

Salem, Oct. 2, 1848.

BOSTON AND PROVIDENCE RAILroad. On and after Monday, October 2d, the Trains will run as follows:

Steamboat Train—Leaves Boston at 5 p.m.—Leaves Providence, on the arrival of the train from Stonington.

Accommodation Trains—Leave Boston at 8 a.m. and 3½ p.m. Leave Providence at 8½ a.m. and 3½ p.m.

Dedham Trains—Leave Boston at 9 a.m., 12 m., 3, 6, and 10½ p.m. Leave Dedham at 7½ 10½ a.m., 1½, 4½, and 9 p.m.

Stoughton Trains—Leave Boston at 11½ a.m. and 4½ p.m. Leave Stoughton at 8½ a.m. and 2½ p.m.

Freight Trains—Leave Boston at 11 a.m. and 6 p.m. Leave Providence at 4 a.m, and 7 40 a.m.

On and after Wednesday, Nov. 1, the DEDHAM TRAIN will run as follows: Leave Boston at 9 a. m., 12 m., 3, 5½ and 10½ p.m. Leave Dedham at 8 10½, a.m., 1½, 4½ and 9 p.m.

WM. RAYMOND LEE, *Sup't.*

PHILADELPHIA, WILMINGTON & BALTIMORE RAILROAD.—1848. WINTER ARRANGEMENT.

December 4th.—Fare $4.

Leave Philadelphia 8 a.m. and 4 p.m.
Leave Baltimore 9 a.m and 8 p.m.
Sunday—Philadelphia only at 4 p.m.
" Baltimore only at 8 p.m.

Trains stop at way stations. A second class car run with morning line only.

CHARLESTON, S. C.

Through tickets Philadelphia to Charleston, $20.

Connecting lines to Charleston leave Philadelphia at 4 p.m. daily—leave Baltimore at 11½ p.m. daily

PITTSBURG AND WHEELING.

Through ticket, Philadelphia to Pittsburg, $12.
" " Wheeling, 13.

All through tickets only sold at office, Philad.

WILMINGTON ACCOMMODATION.

Leaves Philadelphia at 1½ and 4 p.m.
Leaves Wilmington at 8 a.m. and 4 p.m.

N.B.—Extra baggage charged for.

I. R. TRIMBLE, Gen. Supt.

SOUTH CAROLINA RAILROAD.—A Passenger Train runs daily from Charleston, on the arrival of the boats from Wilmington, N. C., in connection with trains on the Georgia, and Western and Atlantic Railroads—and by stage lines and steamers connects with the Montgomery and West Point, and the Tuscumbia Railroad in N. Alabama.

Fare through from Charleston to Montgomery daily..... $26 50
Fare through from Charleston to Huntsville, Decatur and Tuscumbia..... 22 00

The South Carolina Railroad Co. engage to receive merchandize consigned to their order, and to forward the same to any point on their road; and to the different stations on the Georgia and Western and Atlantic railroad; and to Montgomery, Ala., by the West Point and Montgomery Railroad.

t25 JOHN KING, Jr, *Agent.*

GEORGIA RAILROAD. FROM AUGUSTA to ATLANTA—171 MILES. AND WESTERN AND ATLANTIC RAILROAD FROM ATLANTA TO DALTON, 100 MILES.

This Road in connection with the South Carolina Railroad and Western and Atlantic Railroad now forms a continuous line, 408 miles in length, from Charleston to Dalton (Cross Plains) in Murray county, Ga.—32 miles from Chattanooga, Tenn.

RATES OF FREIGHT.		Between Augusta and Dalton. 271 miles.	Between Charleston and Dalton. 408 miles.
1st class.	Boxes of Hats, Bonnets, and Furnature, per cubic foot.....	$0 18	$0 28
2d class.	Boxes and Bales of Dry Goods, Sadlery, Glass, Paints, Drugs and Confectionary, per 100 lbs.	1 00	1 50
3d class.	Sugar, Coffee, Liquor, Bagging, Rope, Cotton Yarns, Tobacco, Leather, Hides, Copper, Tin, Feathers, Sheet Iron, Hollow Ware, Castings, Crockery, etc.	0 60	0 85
4th class.	Flour, Rice, Bacon, Pork, Beef, Fish, Lard, Tallow, Beeswax, Bar Iron, Ginseng, Mill Gearing, Pig Iron, and Grindstones, etc.....	0 40	0 65
	Cotton, per 100 lbs.....	0 45	0 70
	Molasses, per hogshead.	8 50	13 50
	" " barrel....	2 50	4 2
	Salt per bushel.....	0 18	
	Salt per Liverpool sack..	0 65	
	Ploughs, Corn Shellers, Cultivators, Straw Cutters, Wheelbarrows...	0 75	1 50

German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Co. will be forwarded free of commissions. Freight payable at Dalton.

F. C. ARMS,
Sup't. of Transportation.

Augusta, Ga., July 15, 1847. 44•1y

THE WESTERN AND ATLANTIC Railroad.—This Road is now in operation to Oothcaloga, a distance of 80 miles, and connects daily (Sundays excepted) with the Georgia Railroad.

From Kingston, on this road, there is a tri-weekly line of stages, which leave on the arrival of the cars on Tuesday, Thursday and Saturday, for Warrenton, Huntsville, Decatur and Tuscumbia, Alabama, and Memphis, Tennessee.

On the same days, the stages leave Oothcaloga for Chattanooga, Jasper, Murfreesborough, Knoxville and Nashville, Tennessee.

This is the most expeditious route from the east to any of these places.

CHAS. F. M. GARNETT,
Chief Engineer.

Atlanta, Georgia, April 16th, 1846 1v1

CENTRAL RAILROAD—FROM SAVANnah to Macon. Distance 190 miles.

This Road is open for the transportation of Passengers and Freight. Rates of Passage, $8 00. Freight—

On weight goods generally... 50 cts. per hundred.
On measurement goods..... 13 cts. per cubic ft.
On brls. wet (except molasses and oil)..... $1 50 per barrel.
On brls. dry (except lime)... 80 cts. per barrel.
On iron in pigs or bars, castings for mills, and unboxed machinery..... 40 cts. per hundred
On hhds. and pipes of liquor, not over 120 gallons..... $5 00 per hhd.
On molasses and oil..... $6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded free of commission. THOMAS PURSE,

y40 Gen'l. Sup't. Transportation.

BALTIMORE AND OHIO RAILROAD. MAIN STEM. The Train carrying the Great Western Mail leaves Baltimore every morning at 7½ and Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, connecting daily each way with—the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry — with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburgh. Time of arrival at both Cumberland and Baltimore 5½ P. M. Fare between those points $7, and 4 cents per mile for less distances. Fare through to Wheeling $11 and time about 36 hours, to Pittsburgh $10, and time about 32 hours. Through tickets from Philadelphia to Wheeling $13, to Pittsburgh $12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

WASHINGTON BRANCH.

Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5½ P. M from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare $1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. s13y1

BALTIMORE AND SUSQUEHANNA Railroad.—Reduction of Fare. Morning and Afternoon Trains between Baltimore and York.—The Passenger trains run daily, except Sunday, as follows:

Leaves Baltimore at	9 a.m. and	3½ p.m.
Arrives at	9 a.m. and	6½ p.m.
Leaves York at	5 a.m. and	3 p.m.
Arrives at	12½ p.m. and	8 p.m.
Leaves York for Columbia at	1½ p.m. and	8 a.m.
Leaves Columbia for York at	8 a.m. and	2 p.m.

FARE.

Fare to York	$1 50
" Wrightsville	2 00
" Columbia	2 12½

Way points in proportion.

PITTSBURG, GETTYSBURG AND HARRISBURG.

Through tickets to Pittsburg via stage to Harrisburg	$9
Or via Lancaster by railroad	10
Through tickets to Harrisburg or Gettysburg	3

In connection with the afternoon train at 3½ o'clock, a horse car is run to Green Spring and Owing's Mill, arriving at the Mills at 5½ p.m.
Returning, leaves Owing's Mills at 7 a.m.

D. C. H. BORDLEY, *Sup't.*
31 1y Ticket Office, 63 North st.

PHILADELPHIA AND READING RAILROAD.—Passenger Train Arrangement for 1848.

A Passenger Train will leave Philadelphia and Pottsville daily, except Sundays, at 9 o'clock A. M.

The Train from Philadelphia arrives at Reading at 12 18 M.

The Train from Pottsville arrives at Reading at 10 43 A. M.

Fares.	Miles.	No. 1.	No. 2.
Between Phila. and Pottsville,	92	$3·50 and	$3·00
" " Reading,	58	2·25 and	1·90
" Pottsville "	34	1·40 and	1·20

Five minutes allowed at Reading; and three at other way stations.

Passenger Depot in Philadelphia corner of Broad and Vine streets. 8tf

JAMES HERRON, *Civil Engineer,*
OF THE UNITED STATES NAVY YARD,
PENSACOLA, FLORIDA.,
PATENTEE OF THE
HERRON RAILWAY TRACK.

MODELS of this Track, on the most improved plans, may be seen at the Engineer's Office of the New York and Erie Railroad.

NEW YORK & HARLEM RAILROAD CO.—Summer Arrangement.—On and after Tuesday, June 1st, 1847, the cars will run as follows, until further notice. Up trains will leave the City Hall for—

Yorkville, Harlem and Morrisana at 6, 8 and 11 a.m., 2, 2 30, 5 and 7 p.m.

For Morrisiana, Fordham, Williams' Bridge, Tuckahoe, Hart's Corner and White Plains, 7 and 10 a.m., 4 and 5 30 p.m.

For White Plains, Pleasantville, Newcastle, Mechanicsville and Croton Falls, 7 a.m. and 4 p.m. Freight train at 1 p.m.

Returning to New York, will leave—

Morrisiana and Harlem, 7, 8 20 and 9 a.m., 1, 3, 4 30, 6, 6 28 and 8 p.m.

Fordham, 8 08 and 9 15 a.m., 1 20 and 6 15 p.m.

Williams Bridge, 8 and 9 08 a.m., 1 10, 6 08 p.m.

Tuckahoe, 7 38 and 8 25 a.m., 12 55 and 5 52 p.m.

White Plains, 7 10 and 8 35 a.m., 12 50, 5 35 p.m.

Pleasantville, 8 15 a.m. and 5 15 p.m.

Newcastle, 8 a.m. and 5 p.m.

Mechanicsville, 7 48 a.m. and 4. 48 p.m.

Croton Falls, 7 30 a.m. and 4 30 p.m. Freight train at 10 a.m.

Freight train will leave 32d street for Croton Falls and intermediate places, 4 a.m and City Hall 1 p.m.

Returning, leave Croton Falls 10 a.m. and 9½ p.m.

ON SUNDAYS, the trains will run as follows:

Leave City Hall for Croton Falls, 7 a.m, 4 p.m.

Croton Falls for City Hall, 7 30 a.m., 4 30 p.m.

Leave City Hall for White Plains and intermediate places, 7 and 10 a.m. 4 and 5 30 p.m.

White Plains for City Hall, 7 10 and 8 35 a.m., 12 30 and 5 35 p.m.

Extra trains will be run to Harlem, Fordham and Williams Bridge on Sunday, when the weather is fine.

The trains to and from Croton Falls will not stop on N. York island, except at Broome st. and 32d st.

A car will preceed each train 10 minutes to take up passengers in the city.

Fare from New York to Croton Falls and Somers $1, to Mechanicsville 87½c., to Newcastle 75c., to Pleasantville 62½c. to White Plains 50c. 25tf

NORWICH AND WORCESTER RAILROAD. Winter Arrangement.—1848.

Accommodation Trains daily, (Sundays excepted.)

Leave Norwich, at 6 a. m., 12 m. and 2½ p. m.
Leave Worcester, at 6½ and 10 a. m., and 4½ p. m. connecting with the trains of the Boston and Worcester and Providence and Worcester railroads.

New York & Boston Line. Railroad & Steamers. Leave New York and Boston, daily, Sundays excepted, at 5 p.m.—At New York from pier No. 1 N. River.—At Boston from corner Lincoln and Beach streets, opposite United States Hotel. The steamboat train stops only at Framingham, Worcester, Danielsonville and Norwich.

Freight Trains leave Norwich and Worcester daily, Sundays excepted.—From Worcester at 6½ a. m., from Norwich at 7 a.m.

☞ *Fares are Less when paid for Tickets than when paid in the Cars.* ☜

32 1y S. H. P. LEE, Jr., Sup't.

BOSTON AND MAINE RAILROAD.

Winter Arrangement.

Commencing Nov. 13, 1848.

Trains leave Boston as follows, viz: For Portland at 7 A.M. and 2½ P.M.
Great Falls at 7 a.m., 2½ and 3½ p.m.
Haverhill at 7 and 11½ a.m., 2½, 3½ and 5 p.m.
Lawrence, at 7, 9, 11½ a.m., 2½, 3½, 5, 6 p.m.
Reading 7, 9 & 11½ a.m., 2½, 3½, 5, 6, 7½ & 10 p.m

Trains leave for Boston as follows, viz: From Portland at 7½ a.m., and 3 p.m.
Great Falls at 6½ and 9½ a.m., and 4½ p.m.
Haverhill at 7, 8½ and 11 a.m., 3 and 6½ p.m.
Lawrence at 6½, 7½, 8½, 11½ a.m., 12½, 3½, 6½, p.m.
Reading at 6½, 7, 7½, 9½, 11½ a.m., 1½, 3½, 7½, 9, p.m.

MEDFORD BRANCH TRAINS.

From Medford at 6½, 8, 10½, a.m., 2, 4, 6, 9 p.m.
From Boston at 7½, 9½ a. m., 12½ 2½, 5½, 6½, 10 p.m.

The Depot in Boston is on Haymarket Square.

CHAS. MINOT, *Sup't.*
Boston, Nov. 7, 1848.

NEW YORK ANDERIE RAILROAD LINE. SUMMER ARRANGEMENT. For passengers, twice each way daily, (except Sunday,) leave New York from the foot of Duane St. at 7 o'clock, A. M. and at 4 o'clock, P. M. by steamboat, for Piermont, thence by cars to Ramapo, Monroe, Chester, Goshen, Middletown, Otisville, and the intermediate stations.

The return trains for New York will leave Otisville at 6 30, A. M. and 4 15, P. M.; Middletown at 7 A. M. and 4 40, P. M.; Goshen at 7 22, A. M. and 5 3, P. M.; Chester at 7 35, A. M. and 5 18, P. M.

Fare between New York and Otisville, $1 50; way-fare in proportion.

For Mile—Leave Otisville at 5½ o'clock, morning and evening.

For Freight—The barges "Samuel Marsh and "Henry Suydam, Jr." will leave New York (from the foot of Duane St.) at 5 o'clock, P. M. daily (except Sundays.)

No freight will be received in New York after 5 o'clock, P. M.

Freight for New York will be taken by the trains leaving Otisville at 10½ o'clock, A. M.; Middletown at 11½, A. M.; Goshen at 12½, P. M.; Chester at 1 o'clock, P. M., etc., etc.

For farther particulars, apply to J. F. CLARKSON, Agent, corner of Duane and West Sts., New York, or to S. S. POST, Superintendent Transportation, Piermont.

24tf H. C. SEYMOUR, Sup't.

LITTLE MIAMI RAILROAD COMPANY Fall and Winter Arrangement, 1847. On and after Monday, September 20th, until further notice, a Passenger train will run as follows:

Leave Cincinnati daily at 9 A. M., for Milford, Foster's Crossing, Deerfield, Morrow, Fort Ancient, Freeport, Waynesville, Spring Valley, Xenia, Yellow Springs, and Springfield. Returning, will leave Springfield at 4½ a.m. Upward train arrive at Springfield at 2½ p.m. Downward train arrive at Cincinnati at 10½ a.m.

Freight trains will run each way daily.

Messrs. Neil, Moore & Co. are running the following stage lines in connection with the road:

A daily line from Xenia to Columbus and Wheeling, carrying the great Eastern mail.

Daily lines from Springfield to Columbus, Zanesville and Wheeling. Also to Urbana and Bellefontaine.

A line of Hacks runs daily in connection with the train between Deerfield and Lebanon.

Passengers leaving for New York and Boston, arrive at Sandusky city via Urbana, Bellefontaine & the Mad River and Lake Erie railroad, in 27 hours, including several hours' sleep at Bellefontaine. To the same point via Columbus, Delaware, Mansfield and the Mansfield and Sandusky city railroad, is 32 hours. Distance from Cincinnati to Springfield by railroad ..... 84 miles.

From Springfield to Bellefontaine by stage, over a good Summer road	32 "
From Bellefontaine to Sandusky city by railroad	102 "

Fare—From Cincinnati to Lebanon	$1 00
" " " Xenia	1 50
" " " Springfield	2 00
" " " Columbus	4 00
" " " Sundusky city	7 00

The Passenger trains runs in connection with Strader & Gorman's line of Mail Packets to Louisville.

Tickets can be procured at the Broadway Hotel, Dennison House, or at the Depot of the Company on East Front street.

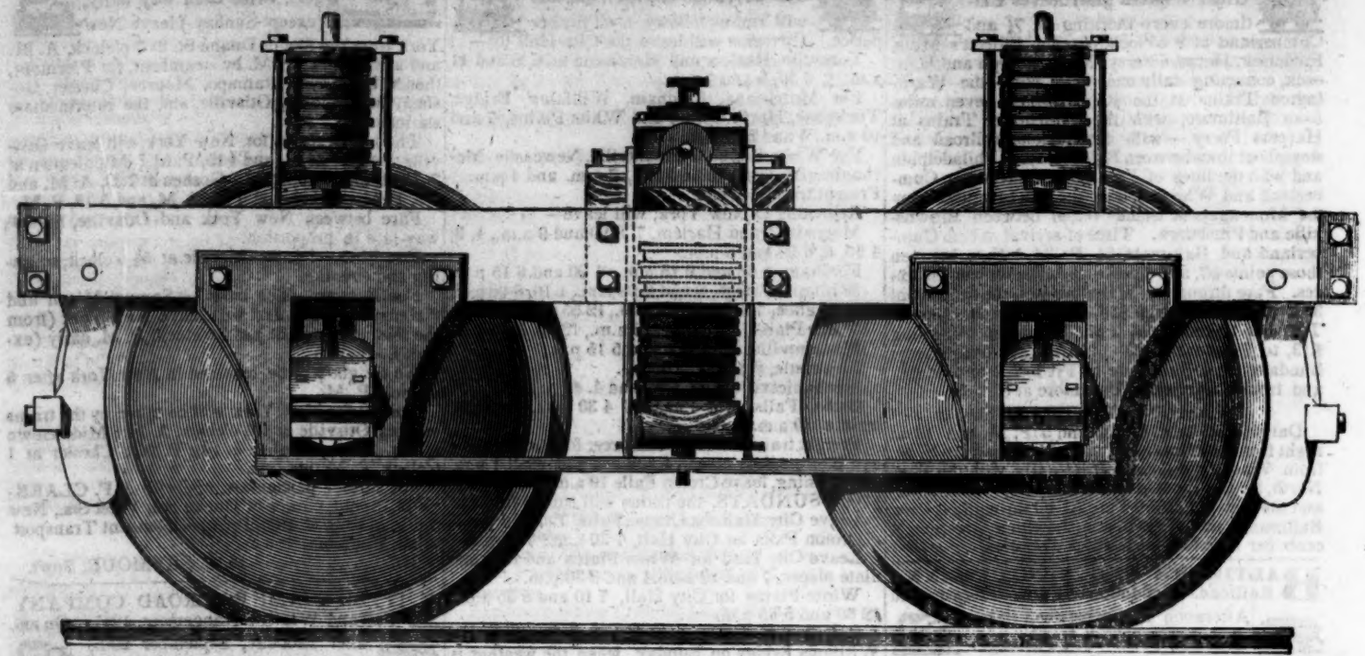
Further information and through tickets for the Stage lines, may be procured at P. Campbell, Agent on Front street, near Broadway.

The company will not be responsible for baggage beyond 50 dollars in value, unless the same is returned to the conductor or agent, and freight paid at of a passage for every $500 in value over that amount.

47tf W H. CLEMENT, Sup't

FOWLER M. RAY'S

METALLIC INDIA RUBBER CAR SPRINGS.



THE NEW ENGLAND CAR COMPANY have introduced these Springs, and they are now in operation on every Railroad terminating in Boston, and several others in New England and the Middle States. Their qualities are well understood, or may be readily ascertained by every person interested to know them. They require no recommendation from the Company. The only known compound of India Rubber good for anything for this purpose is the Vulcanized India Rubber, invented by Charles Goodyear, of New Haven, and the application of it, and the form in which it is used, were invented by F. M. Ray, of New York. The right to manufacture and sell the substance itself for the purpose of Railroad Carriage Springs, as well as the form and application of it, are held exclusively by the New England Car Company. No other company, or individual, has any right to sell or use it for such purpose, or has attempted so to use it in this country.

The New England Car Company guarantee the right to use the article they sell for Railroad Carriage Springs only against all adverse rights, whether under patents or otherwise; and all persons and corporations are cautioned against a similar use of the article, when purchased of any other parties.

The Springs they sell are all manufactured in a uniform manner, and under the immediate inspection of their own Agent, and have been proved and known to answer the purpose. None have been manufactured in this country, or imported from abroad, beside their own, which would at all answer the purpose; and if any such should be produced, it cannot be used for Car Springs, while Goodyear's patents, and the rights of the New England Car Company under them, remain in force.

The New England Car Company are now prepared to answer orders for all that may be called for, on reasonable notice, and uniform and equitable terms. They invite the most careful examination and the severest scrutiny into the merits of their Springs, wherever they have applied them. And if after such examination, your Company should judge it for their interest to adopt them, the N. E. Car Company would respectfully invite the patronage which they think they deserve, and are confident of receiving at your hands.

EDWARD CRANE, *Agent*,
Office 99 State street,

Orders may also be left with WM. RIDER & BROTHERS, No. 58 Liberty street, New York, or with F. M. RAY, *Agent*,
100 Broadway, N. Y.

The following article, from the pen of Mr. HALE, the president of the Boston and Worcester Railroad, expresses his opinion of this important improvement, as published in the Boston Daily Advertiser of June 7 1848. He says:

"Of the numerous uses to which the wonderful elasticity and durability of India Rubber renders this material applicable, we are hardly aware of one in which it has been more successful than in forming springs for railroad cars. We have had occasion to observe, for some months past, its application to this use, on one of the passenger cars on the Newton special train of the Boston and Worcester railroad. It is there used, not only for the springs on which the car rests, but for the springs attached to the draw bar at each end of the car, to prevent any jar on the sudden advancement or interruption of the motion of the car. For both these purposes it appears to be admirably adapted and we do not learn, that during the period in which it has been used, any defect in it has been discovered. It renders the movements of the car extremely easy, and protects it more effectually, we think, than any other spring which we have ever seen in use, from very harsh or unpleasant motion, either vertical or horizontal. It is simple in its form and application, extremely light, and little liable to get out of repair. During the period of some months, in which we have seen the springs in operation, there is no apparent wear or diminution of their efficacy."

The above statement of Mr. Hale agrees with my own observation in all particulars.

WM. PARKER, Supt. B. & W. R. R.
June 8, 1848.

I fully concur in the foregoing statement, from practical observation of its use for the last 5 months, on the Boston and Worcester railroad corporation cars.

D. N. PICKERING, Jr.,
Supt. Car Building, B. & W. R. R.
Boston, June 10, 1848.

The New England Car Company have introduced their Vulcanized India Rubber Car Springs on the roads with which we are respectively connected, and we fully concur with Mr. Hale in the above opinion of their character and properties.

DAVENPORT & BRIDGES, Car Builders.
BRADLEY & RICE, Car Builders.
Boston, June, 1848.

PIG AND BLOOM IRON.—THE SUBSCRIbers are agents for the sale of numerous brands of Charcoal and Anthracite Pig Iron, suitable for Machinery, Railroad Wheels, Chains, Hollowware, etc. Also several brands of the best Puddling Iron, Juniatta Blooms suitable for Wire, Boiler Plate, Axe Iron, Shovels, etc. The attention of those engaged in the manufacture of Iron is solicited by

A. WRIGHT & NEPHEW,
12tf Vine St. Wharf, Philadelphia.

BACK VOLUMES OF THE RAILROAD JOURNAL for sale at the office No. 98 Nassau street.

LAP-WELDED WROUGHT IRON TUBES for Tubular Boilers, from 1¼ to 15 inches diameter, and any length not exceeding 17 feet—manufactured by the Caledonian Tube Company, Glasgow, and for sale by

IRVING VAN WART,
12 Platt street, New York.
JOB CUTLER, Patentee.

These Tubes are extensively used by the British Government, and by the principal Engineers and Steam Marine and Railway Companies in the Kingdom. 28tf

CORROSIVE SUBLIMATE.

THIS article now extensively used for the preservation of timber, is manufactured and for sale by POWERS & WEIGHTMAN, manufacturing Chemists, Philadelphia.
Jan. 20, 1849.

AMERICAN RAILROAD JOURNAL.
PUBLISHED BY J. H. SCHULTZ & CO.
NOS. 9 & 10 PRIME'S BUILDINGS,
(THIRD FLOOR,)
54 WALL STREET,
NEW YORK CITY.

TERMS.—Five Dollars a year, *in advance*.

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One square "	2 50
One page, single insertion	8 00
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One square " "	1 00
Professional notices per annum	5

☞ LETTERS and COMMUNICATIONS for this Journal may be directed to the *Editor*,
HENRY V. POOR, 54 WALL ST.